



MAP SYMBOL HANDBOOK



UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management

9161

Report of the Management

1.

2. The Board of Directors

3. The Board of Directors

#1336345

9161-MAP SYMBOLS

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MAP SYMBOL HANDBOOK

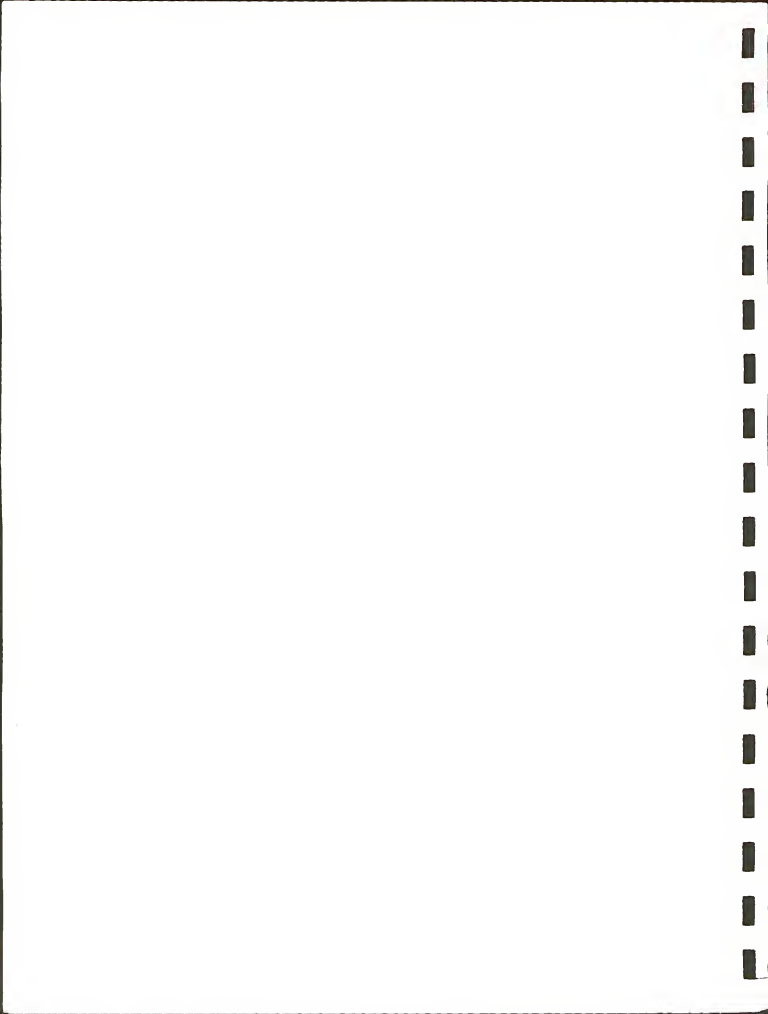
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9161—MAP SYMBOLS

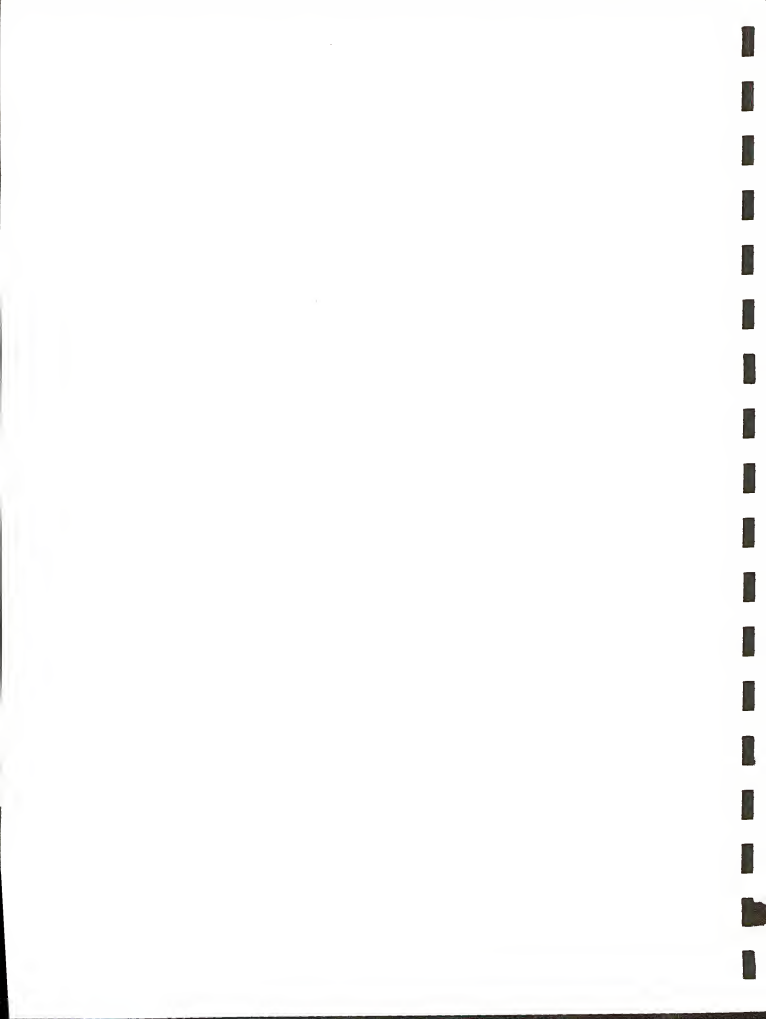
FOREWORD

THIS HANDBOOK HAS BEEN REVISED TO PROVIDE UPDATED, RE-EVALUATED AND NEW MAP SYMBOLIZATION FOR THE EMPLOYEES OF THE BUREAU OF LAND MANAGEMENT ENGAGED DIRECTLY OR INDIRECTLY IN MAP MAKING.

THESE MAP SYMBOLS HAVE BEEN SELECTED AFTER A REAPPRAISAL OF THE CURRENT STANDARD BUREAU MAP SYMBOLIZATION AND A THOROUGH AND OBJECTIVE CONSIDERATION OF ALL PROPOSED CHANGES AND ADDITIONS SUBMITTED. A LARGE MAJORITY OF THE FIELD PROPOSALS WERE ADOPTED AND HAVE BEEN MADE PART OF THIS HANDBOOK. SYMBOLS WERE SELECTED TO REFLECT AND SATISFY OVERALL BUREAU FIELD AND OFFICE REQUIREMENTS.

WHEN NEEDED, MODIFICATIONS OR NEW SYMBOLS WILL BE ADDED TO THIS PUBLICATION AND WILL BE DATED TO FACILITATE READY REFERENCE.

ALL SYMBOLS CONTAINED IN THIS HANDBOOK ARE TO BE UTILIZED IN THE PREPARATION OF ALL STANDARD OR OFFICIAL BLM MAPS.



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SECTION — B. RANGE

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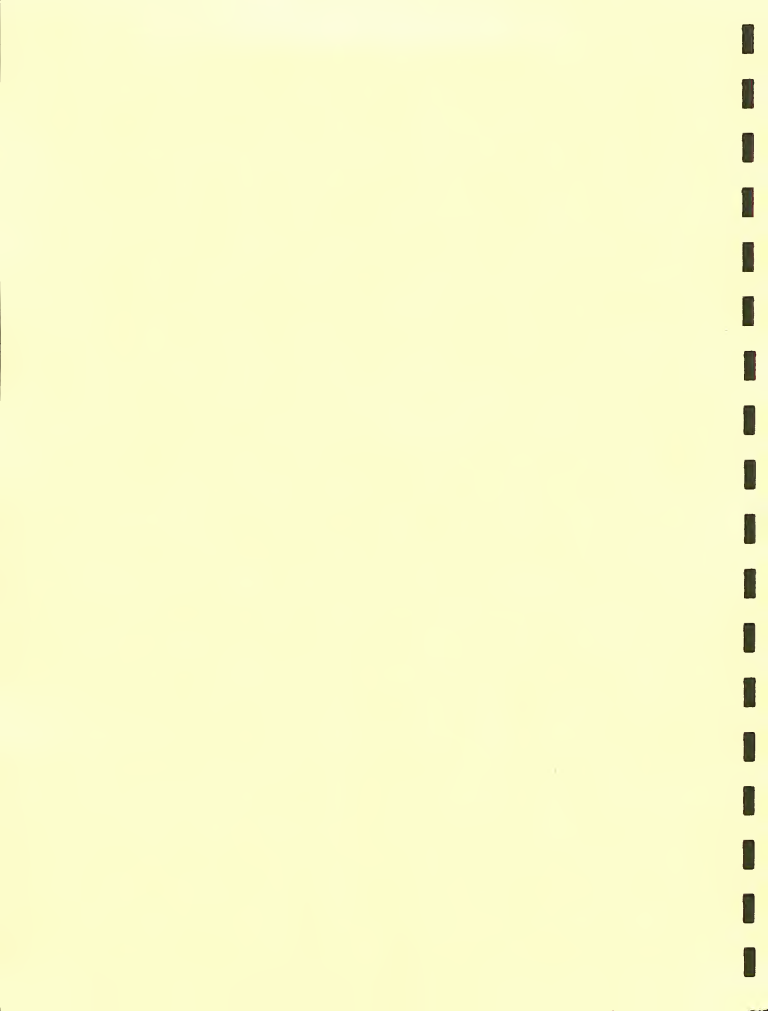
SECTION — D. RECREATION

SECTION — E. WILDLIFE

SECTION — F. MINERALS

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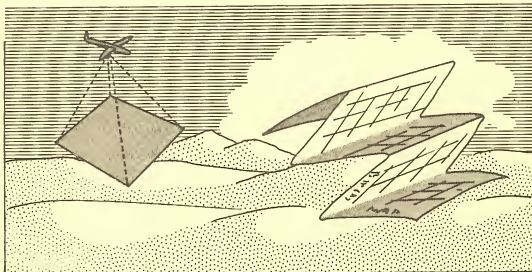
SECTION — H. LAND STATUS LEGEND

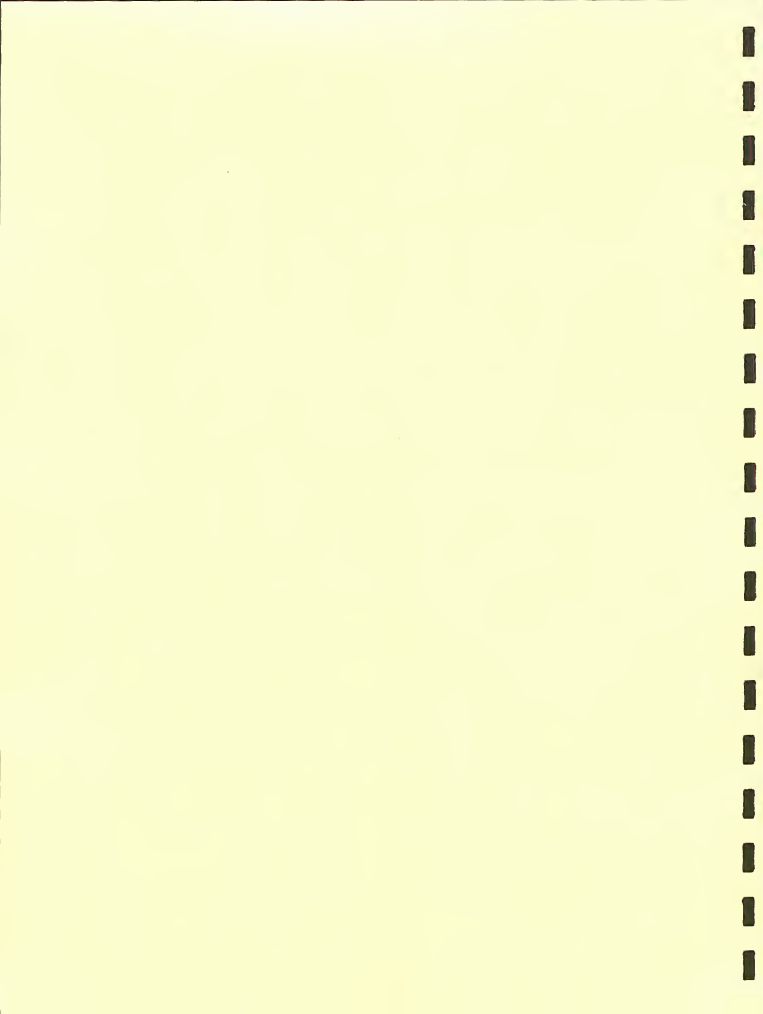


SECTION

A

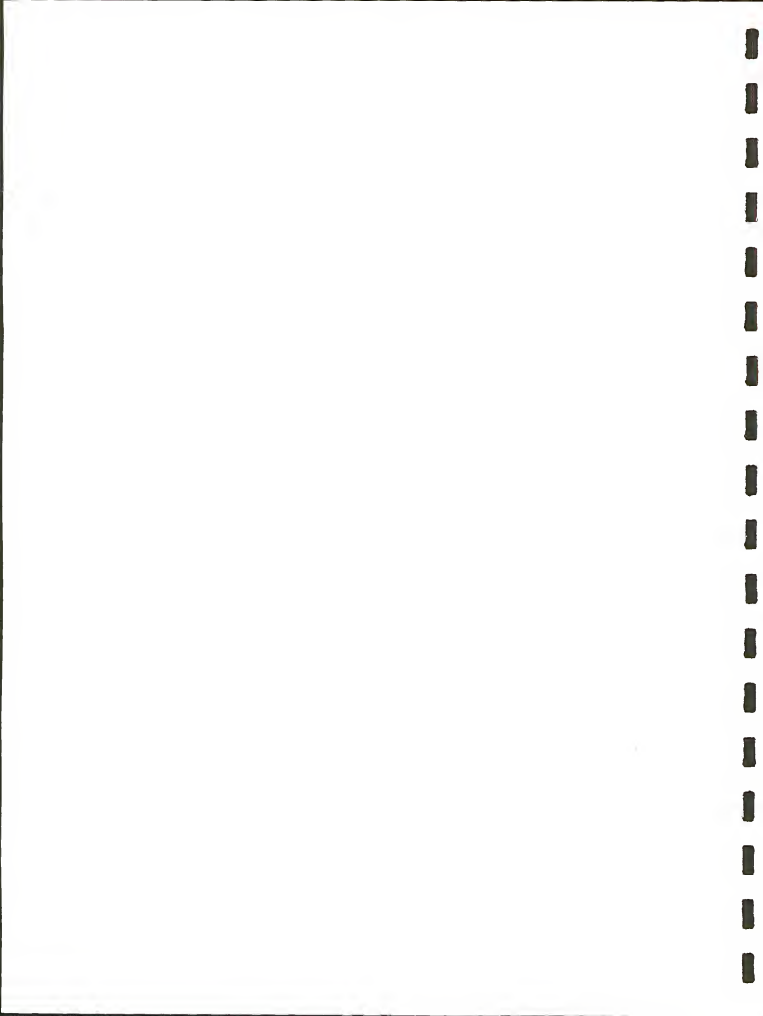
CARTOGRAPHIC





SECTION A INDEX

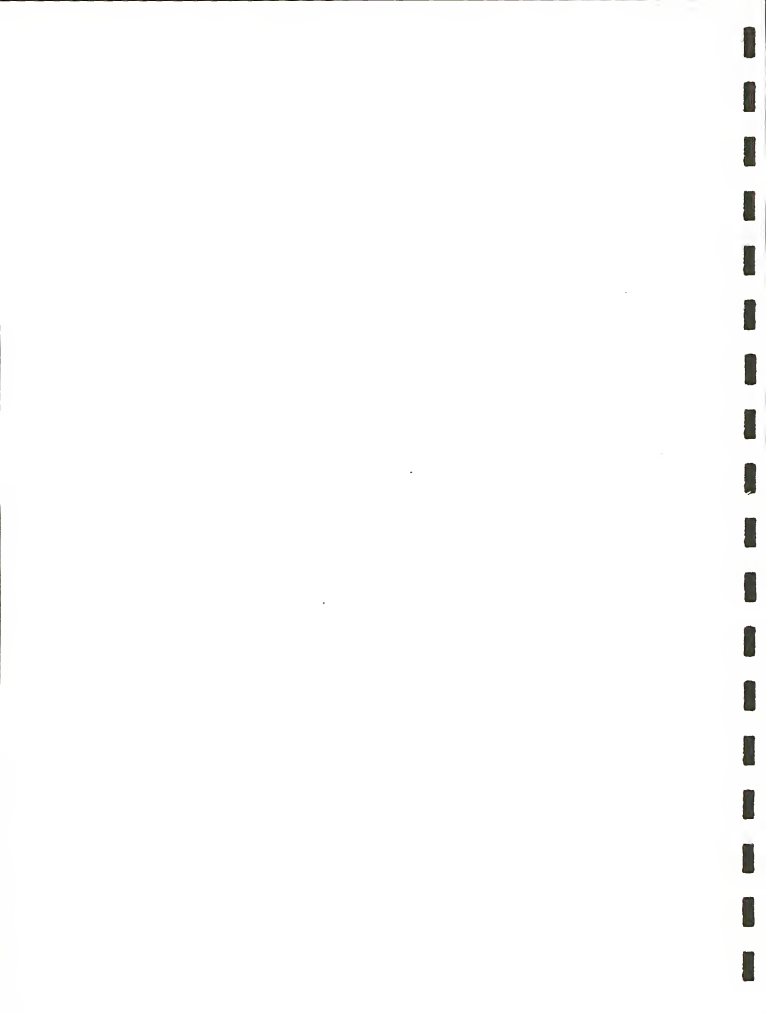
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PART

I

GENERAL



A. INTRODUCTION

THE MAP SYMBOLS CONTAINED WITHIN SECTION A OF THE BUREAU MAP SYMBOL HANDBOOK RELATE TO AND WERE DESIGNED PRIMARILY FOR THE USE OF THE SERVICE CENTER CARTOGRAPHIC BRANCHES IN THEIR PREPARATION OF THE BUREAU'S BASIC MAP SERIES. THEIR USE, HOWEVER, IS NOT RESTRICTED OR LIMITED TO THE SPECIFIC NEEDS OF CARTOGRAPHIC PERSONNEL OR THE CONSTRUCTION OF THE BASIC MAP SERIES. ALL BUREAU PERSONNEL ARE REQUESTED TO UTILIZE THE SYMBOLS TO THE GREATEST EXTENT POSSIBLE WHEREVER THEY MAY BE APPLICABLE.

B. CONTENTS

TO PROVIDE A SIMPLE YET EFFICIENT MEANS OF OBTAINING THE CARTOGRAPHIC SYMBOL INFORMATION DESIRED, SECTION A HAS BEEN DIVIDED INTO FOUR PARTS:

PART I GIVES GENERAL INFORMATION APPLICABLE TO THE SECTION.

PART II DESCRIBES IN DETAIL THE DRAFTING AND SCRIBING SPECIFICATIONS.

PART III DEPICTS THE PERTINENT ILLUSTRATIONS AND RELATED DATA.

PART IV DEFINES THE USE AND APPLICATION OF SPECIFIC MAP SYMBOLS IN CERTAIN TYPES AND ELEMENTS OF FIELD WORK.

SYMBOLS RELATING ONLY TO SPECIFIC ACTIVITIES CAN BE OBTAINED FROM THE APPROPRIATE SECTION WITHIN THIS HANDBOOK.

C. SCRIBING PARTICULARS

TWO MODIFIED TYPES OF SCRIBING PROCESSES HAVE BEEN DESIGNED AND ADOPTED TO PRODUCE THE BUREAU'S FOUR TYPES OF BASIC MAPS. THEY ARE THE MULTI-COLOR, AND THE SINGLE COLOR SCRIBING PROCESSES--PLEASE SEE PART III FOR ELEMENTAL ILLUSTRATED SEQUENCE DIAGRAMS OF THE TWO PROCESSES.



EACH OF THE REQUIRED MAPPING SCALES-- $\frac{1}{2}$ INCH, 1 INCH, AND 2 INCH-- HAS A SPECIFIC UNIT UNDER PART III DEVOTED TO ITS INDIVIDUAL DRAFTING AND SCRIBING INSTRUCTIONS AND SPECIFICATIONS. IT SHOULD BE NOTED THAT THOSE PAGES WITHIN THE $\frac{1}{2}$ INCH SCALE UNIT WHICH ARE DESIGNATED FOR USE ON BLUE OR BLACK PLATES: THE BLUE PLATE DENOTES THE FEATURES TO BE PRINTED IN BLUE ON THE MULTI-COLOR 16" X 21" QUADRANGLE MAP, AND THE BLACK PLATE DENOTES THE FEATURES TO BE PRINTED IN BLACK ON THE SINGLE COLOR SERIES MAP. PAGES WITHIN THE $\frac{1}{2}$ INCH SCALE UNIT DESIGNATED FOR BLACK PLATE, DENOTE PRINTING THE FEATURES IN BLACK FOR BOTH THE MULTI-COLOR AND SINGLE COLOR MAPS.

D. SPECIAL SYMBOL DEFINITIONS

1. ALL WEATHER ROAD:

ONE WHICH CAN BE TRAVERSED ALL YEAR--ONLY UNUSUALLY ADVERSE WEATHER CAN RESTRICT TRAVEL.

2. SEASONAL ROAD:

ONE ON WHICH USE IS USUALLY RESTRICTED TO GOOD WEATHER--SUBJECT TO AND AFFECTED ADVERSELY BY EROSION, RUTTING, MUDDY CONDITIONS, ETC.

3. PRIMITIVE ROAD:

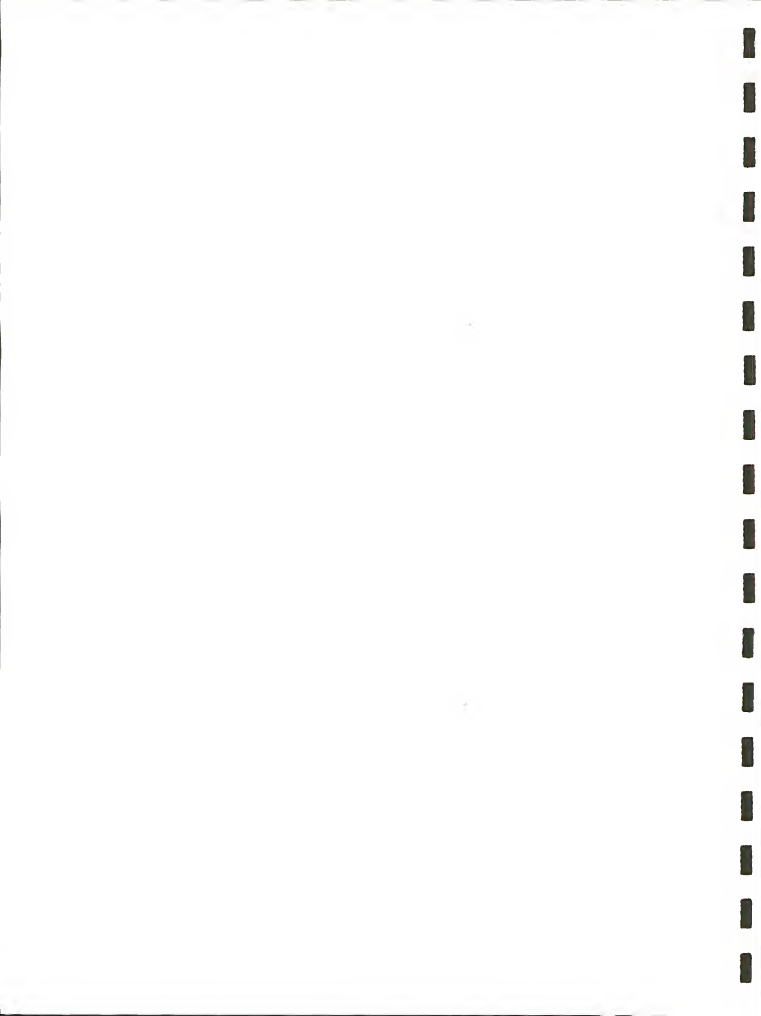
ONE WHICH REQUIRES HIGH VEHICLE CLEARANCE OR 4-WHEEL DRIVE POWER OR BOTH.

4. EXISTING SECTION CORNER:

ONE WHICH HAS EVIDENCE OF ORIGINAL CORNER LOCATION IDENTIFICATION.

5. RECOGNIZED SECTION CORNER:

ONE WHICH IS ACCEPTED THROUGH LOCAL USAGE (e.g. FENCE CORNER, TIMBER CUTTING LINE, ETC.)



PART

II

**DRAFTING AND SCRIBING
SPECIFICATIONS AND INSTRUCTIONS**


















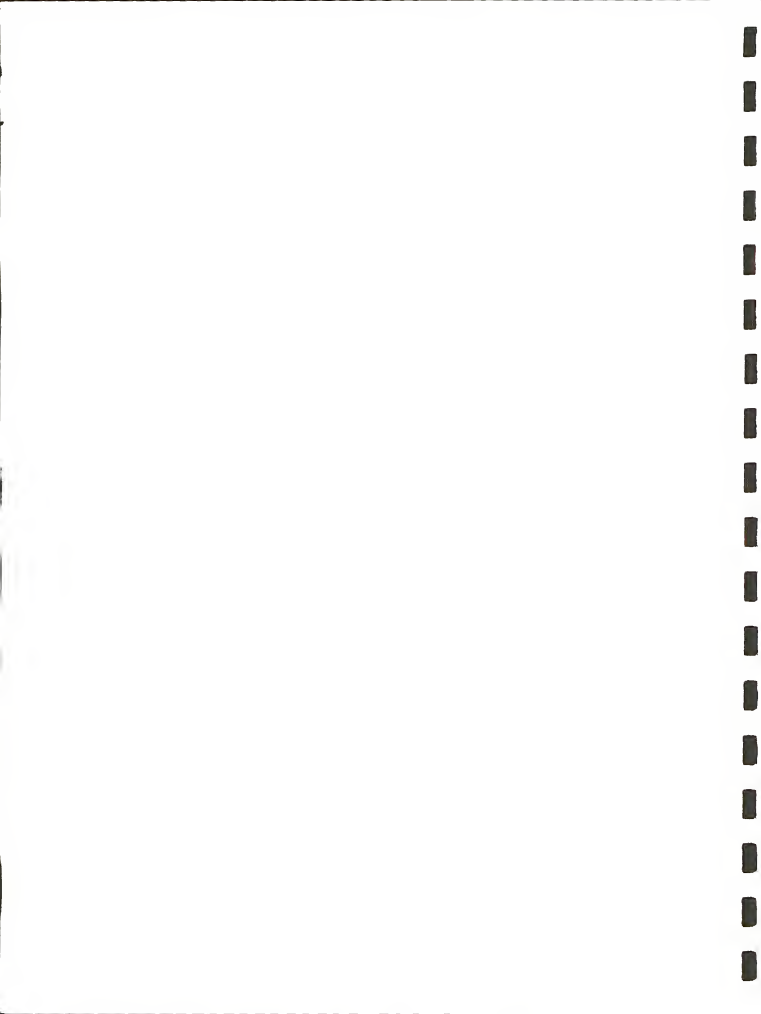
$\frac{1}{2}$ "
SCALE
SPECIFICATIONS



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			BOUNDARIES			SCALE 1/2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
1	DISTRICT		.025"	SOLID LINE		STRADDLES BOUNDARY LINE--BREAK LINE FOR MAJOR FEATURES, E.G., FOUND SECTION CORNER, CONTROL STATION, ETC.
2	RESOURCE AREA AND O&C MASTER UNIT		.017"	DASH SPACE 	.50" .05"	DITTO
3	PLANNING UNIT		.017"	DASH SPACE 	.30" .05"	DITTO
4	ALLOTMENT			DOT SPACE 	A3 .05"	NOT APPLICABLE ON COLOR QUADRANGLE MAP
5	NATIONAL OR STATE		.015"	DASHES SPACE 	.30" & .10" .05"	STRADDLES BOUNDARY LINE--BREAK LINE FOR MAJOR FEATURES, E.G., FOUND SECTION CORNER, CONTROL STATION, ETC.
6	COUNTY		.012"	DASHES SPACE 	.30" & .10" .05"	DITTO
7	LAND GRANT		.012"	DASH DOTS SPACE 	.30" A4 .05"	DITTO
8	MISCELLANEOUS (RCA, RESERVATIONS, ETC.)		.012"	DASH DOT SPACE 	.30" A4 .05"	DITTO



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			BOUNDARIES			SCALE 1/2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
9	PARK (STATE, COUNTY OR LOCAL)	— — — — —	.012"	DASH — SPACE	.20" .05"	STRADDLES BOUNDARY LINE--BREAK LINE FOR MAJOR FEATURES, E.G., FOUND SECTION CORNER, CONTROL STATION, ETC.
10	TOWNSHIP AND RANGE	SURVEYED PROTRACTED	.010"	SOLID LINE DASH — SPACE	.15" .05"	DASHES TO BE SCRIBED SO THAT CORNER INTERSECTIONS ARE EQUAL IN LENGTH
11	SECTION	SURVEYED PROTRACTED	.005"	SOLID LINE DASH — SPACE	.10" .025"	DITTO
12	SECTION STATUS SUBDIVISION	—————	.004"	SOLID LINE		OMIT ON COLOR QUADS
13	MINERAL SURVEYS & DLC'S	—————	.004"	SOLID LINE		EXTERIOR BDY. OF SOLID BLOCKS OR CLUSTERS. ONLY SHOW THOSE REQUIRED TO DEFINE BLM OWNERSHIP.
14	CONTINENTAL DIVIDE	— — — — —	.012"	DASH — SPACE	.40" .10"	











9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE

MARKERS AND MONUMENTS















SCALE 1/2 INCH

ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
15	SECTION CORNER-- EXISTENT (FOUND, PHOTO ID POSITIVE)				A15	
16	SECTION CORNER-- EXISTENT (FOUND, PHOTO ID NOT POSITIVE)					NOT APPLICABLE
17	SECTION CORNER-- RECOGNIZED (FOUND, PHOTO ID POSITIVE)				A15	ROTATE TEMPLAT TO REQUIRED POSITION
18	SECTION CORNER-- RECOGNIZED (FOUND, PHOTO ID NOT POSITIVE.)					NOT APPLICABLE
19	SECTION CORNER SEARCHED FOR-- NOT FOUND					NOT APPLICABLE
20	ROUTE MARKER-- INTERSTATE		.003"		"A" TEMPLAT	PLACE NEXT TO HIGHWAY ORIENTED IN NORTH AND SOUTH POSITION
21	ROUTE MARKER--U.S.		.003"		"A" TEMPLAT	DITTO
22	ROUTE MARKER--STATE		.003"		"A" TEMPLAT	DITTO



9161 MAP SYMBOLS






DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

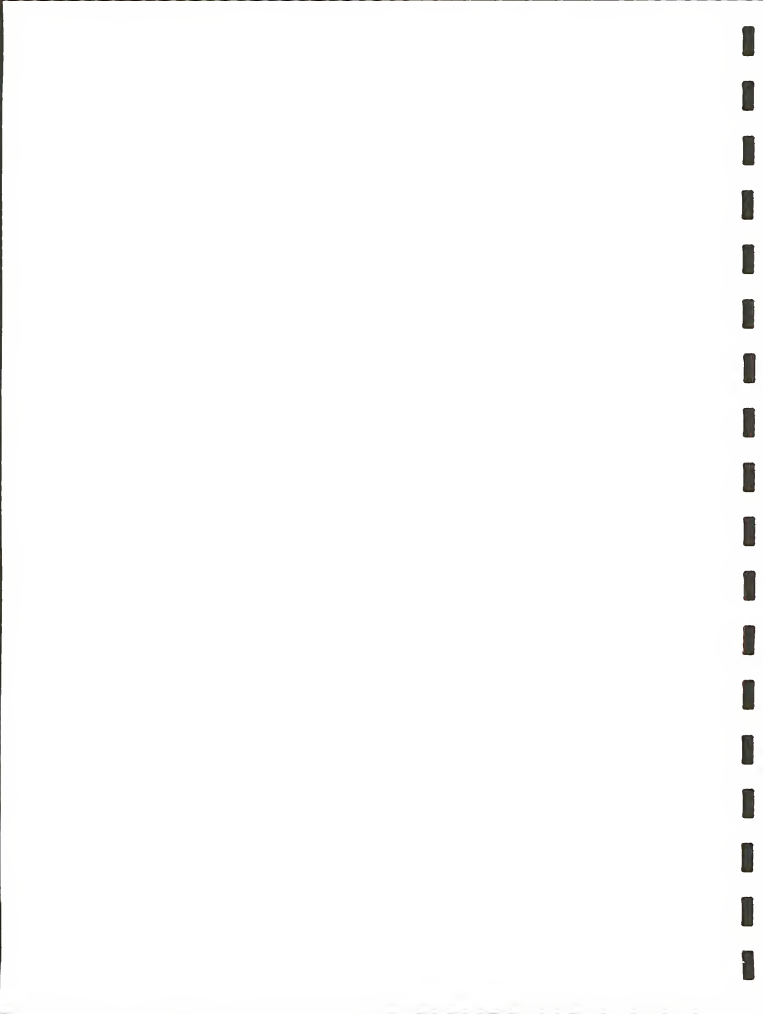
BLACK PLATE			MARKERS AND MONUMENTS			SCALE 1/2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
23	BLM ROAD SYSTEM MARKER		.003 "		B34 B9	PLACE NEXT TO HIGHWAY ORIENTED IN NORTH AND SOUTH POSITION
24	TRIANGULATION STATION		.008 "	TRIANGLE  DOT 	A28	PLACE DOT IN CENTER
25	BENCH MARK	BM 	.008 "	CROSSBAR 	A34	ROTATE TEMPLAT TO REQUIRED POSITION
26	PRECISE ALTIMETER ELEVATION					NOT APPLICABLE
27	SPOT ELEVATION (UNCHECKED)					NOT APPLICABLE
28	REFERENCE POINT INDEPENDENT SURVEY-- HORIZONTAL OR VERTICAL					NOT APPLICABLE
29	U. S. MINERAL OR LOCATION MONUMENT				A28	
30	BOUNDARY MONUMENT		.008 "	SQUARE  DOT 	B16	PLACE DOT IN CENTER



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			MARKERS AND MONUMENTS			SCALE 1/2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
31	SECTION IDENTIFICATION	6				PLACE IN CENTER OF SECTIONS 1, 6, 31, & 36
32	AERIAL PHOTO CENTER (POSITION & I.D.)	1-3			B1	FIRST & LAST PHOTO PLUS EVERY FIFTH EXPOSURE IN EACH FLIGHT. (SHOW ONLY IF USED IN COMPILATION)
33	TOWNS AND CITIES (CORP. LIMIT BDY.)		.008"	BDY. SYM. • DASH ——— SPACE INTERIOR	DOT A4 .50" .10" ZIP #18	1. MULTI-COLOR MAP--APPLY ZIP TO INTERIOR ON NAME PLATE. 2. SINGLE-COLOR MAP--APPLY ZIP TO INTERIOR ON NAME PLATE.
34	BLM OFFICE		.008"	BLDG. BASE  POLE  FLAG 	B15 B13 B15 B16	3. PLACEMENT OF NAME IN OR OUT OF BDY. IS OPTIONAL.



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			WORKS AND STRUCTURES			SCALE 1/8 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
35	ALL WEATHER ROAD DIVIDED HWY.		.005"	O/A WIDTH	.025"	O/A DESIGNATES <u>OVERALL WIDTH</u>
			.005"	O/A WIDTH	.045"	
36	SEASONAL USE ROAD		.005"	O/A WIDTH DASH SPACE	.025" .075" .020"	DITTO
37	PRIMITIVE ROAD		.005"	O/A WIDTH DASH SPACE INSERT	.025" .075" .020" .025"	PLACE INSERTS WITHIN ALTERNATE DASHES
38	RAILROAD SINGLE TRACK		.005"	CROSSTIES	A10	
39	RAILROAD DOUBLE TRACK		.005"	O/A WIDTH TIES: LENGTH SPACE	.025" A21 A10	USE LONG SIDE OF A21
40	RAILROAD ABANDONED		.005"	DASH CROSSTIES SPACE	.15" A10 .05"	
41	TRAIL		.005"	DASH SPACE	.075" .020"	
42	LIVESTOCK ROUTE (ESTABLISHED)					NOT APPLICABLE



9161 MAP SYMBOLS

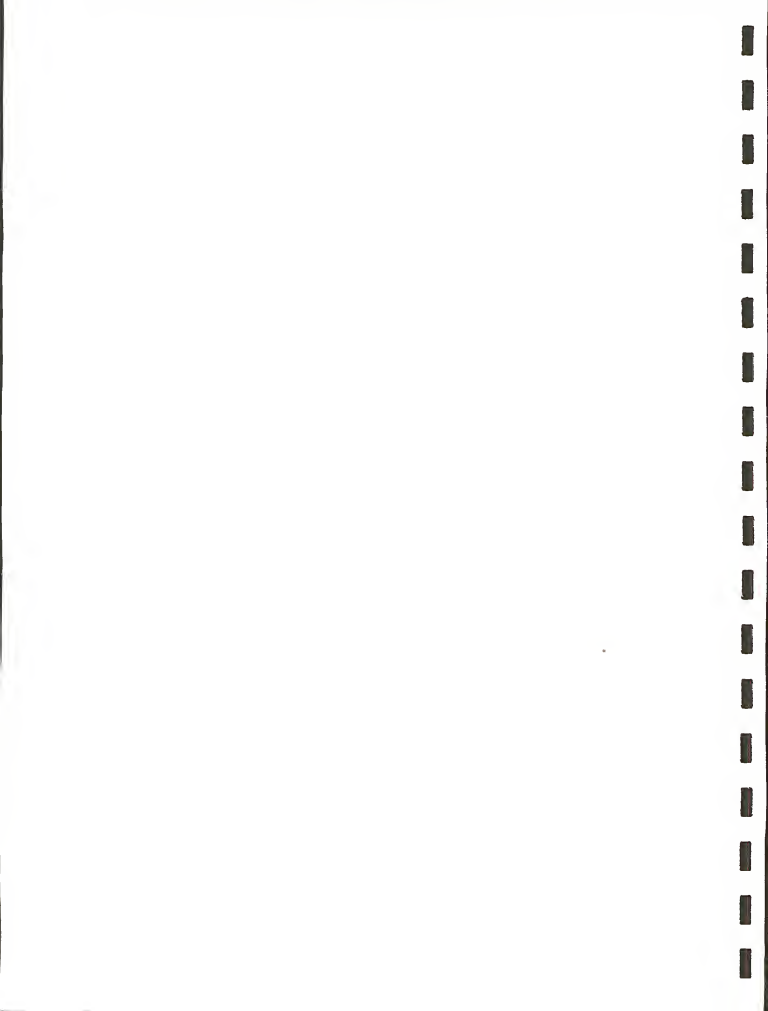
DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE

WORKS AND STRUCTURES

SCALE 1/2 INCH

ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
43	ROAD BRIDGE		.005"	TICKS ∞∞	A15	SHOW BRIDGES ACTUAL SIZE EXCEPT THOSE LESS THAN .10" IN LENGTH
44	RAILROAD BRIDGE		.005"	TICKS ∞∞	A15	DITTO
45	FOOT BRIDGE		.005"	TICKS ∞∞	A15	DITTO
46	FERRY				A17	
47	ROAD FORD		.005"	DASH = SPACE	.075" .020"	
48	TRAIL FORD		.005"	DASH -- SPACE	.075" .020"	
49	ROAD TUNNEL		.005"	O/A WIDTH TICKS ∞∞ DASH = SPACE	.025" A15 .075" .020"	SHOW TUNNELS ACTUAL SIZE EXCEPT THOSE LESS THAN .10" IN LENGTH
50	RAILROAD TUNNEL		.005"	O/A WIDTH TICKS ∞∞ DASH = SPACE	.025" A15 .075" .020"	DITTO



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			WORKS AND STRUCTURES			SCALE 1/2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
51	FENCE (PROPOSED)					A DISTRICT SUPPLEMENT--NOT PART OF PRINTED MAP
52	FENCE		.005"	TICKS SPACE	A15 .30"	SHOW ONLY THOSE OBTAINED FROM FIELD (DISTRICT) EDIT
53	ROAD FENCED-- ONE SIDE		.005"	TICKS SPACE	A15 .30"	DITTO
54	ROAD FENCED-- BOTH SIDES		.005"	TICKS SPACE	A15 .30"	DITTO
55	RAILROAD FENCED-- ONE SIDE		.005"	TICKS SPACE	A15 BETWEEN TIES	DITTO
56	RAILROAD FENCED-- BOTH SIDES		.005"	TICKS SPACE	A15 BETWEEN TIES	DITTO
57	CATTLEGUARD		.005"	O/A WIDTH LENGTH TICKS	A10 .10" A15	
58	RECREATION SITE		.005"	LARGE SMALL BASE	A28 A5 A26	



9161 MAP SYMBOLS

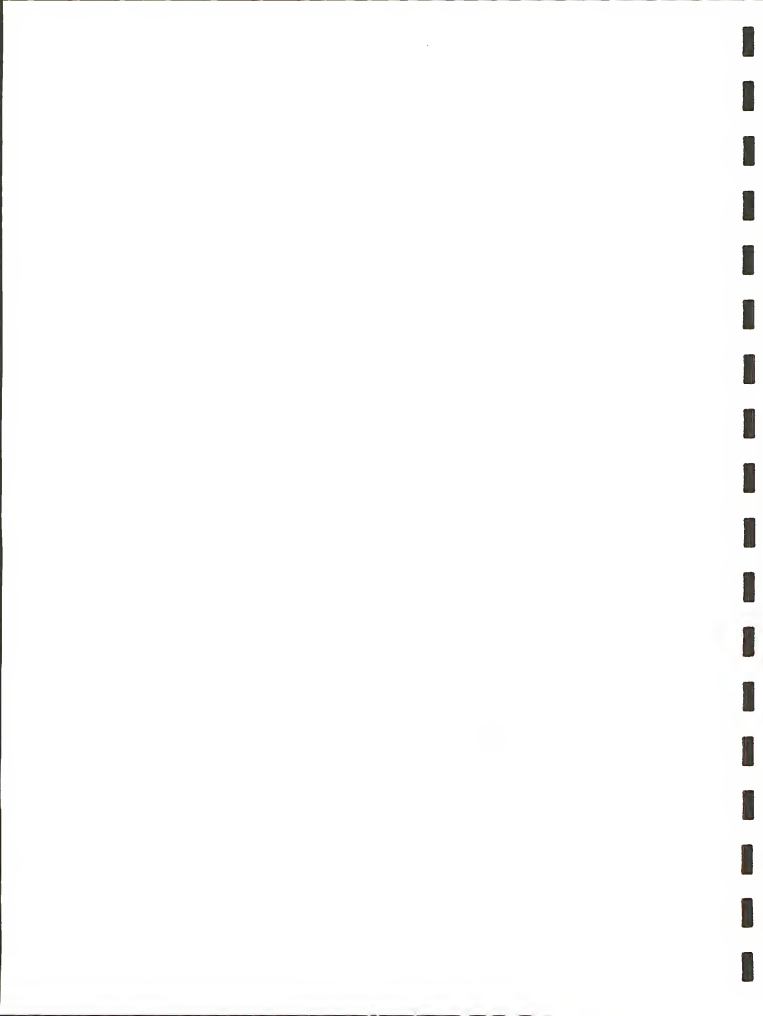
DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE

WORKS AND STRUCTURES

SCALE 1/2 INCH

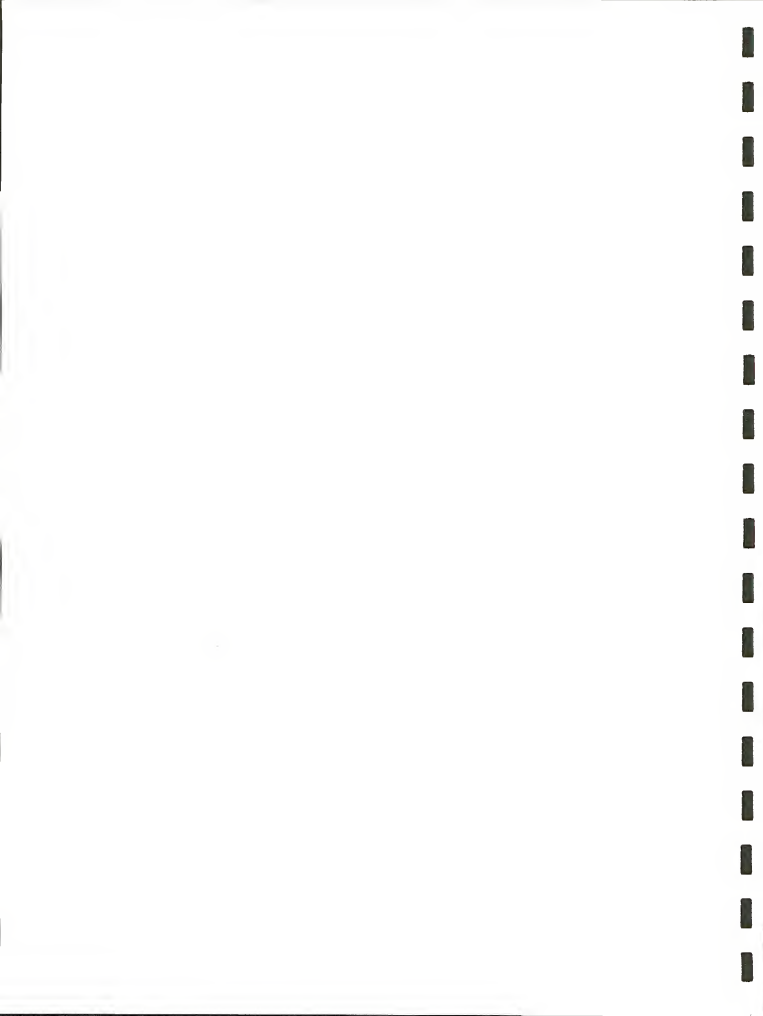
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
59	TANKS (LABEL AS TO TYPE)	• ⊙	.005"	SMALL ○○○○ LARGE ○○ CROSSHATCH ⊗	A1,2,3, OR 4 A13 OR 30 3 OR 4/45°	
60	FIRE L.O. (PRIMARY) & TRIANGULATION STA.	⊙ ⊙ (NAME)	.005"	CIRCLE ○ TRIANGLE △ DOT •	A30 A28 A4	
61	FIRE L.O. (SECONDARY) & TRIANGULATION STA.	⊙ ⊙ (NAME)	.005"	LARGE TRIANGLE ○ SMALL CROSS +	A30 A28 A2 A16	ROTATE TEMPLAT TO MAKE CROSS IN CENTER-SCRIBE LARGE CIRCLE FIRST
62	FIRE TOOL CACHE	⌚	.005"	BOX □ TOP ◇	A16 A16	ROTATE TEMPLAT TO 45° ANGLE
63	BUILDINGS	■ ■ ■			USE APPROPRIATE TEMPLAT SIZE	DEPICT ONLY THOSE BUILDINGS WHICH ADD VALUE OR UTILITY TO THE MAP, E.G. INDICATE SMALL SETTLEMENTS, POST OFFICES, SHELTER IN REMOTE AREAS, &
64	BUILDINGS (ABANDONED)	■ ■ ■ ■ ■ ■	.005"		DITTO	SIMILAR CATAGORIES.
65	SCHOOL	⌚	.005"	BLDG. □ POLE □ FLAG ▸	A14 A21 A22	ROTATE TEMPLAT TO REQUIRED POSITION
66	CHURCH	⌚	.005"	BLDG. □ POLE □ CROSS ⊕	A14 A21 A14	ROTATE TEMPLAT TO REQUIRED POSITION



9161 MAP SYMBOLS










DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			WORKS AND STRUCTURES			SCALE 1/2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
67	SAWMILL		.005"	BLDG. BASE	A13 A26	1/8 CIRCLE
68	SHELTER		.005"	TOP SIDES BASE	A26 A21 & A26 A26	
69	BLM RADIO INSTALLATION		.005"	BLDG. ANTENNA	A7 A15	1. 2. 3.
70	AIRFIELD			GUIDES 	B20 A TEMPLAT (ST. HWY. SYM)	1. (PENCIL) 3. DO NOT SHOW RUNWAYS 2. 4.
71	AIRWAY BEACON			GUIDES 	B3 A3	1. (PENCIL) 3. 2. 4.
72	OIL OR GAS WELLS	ACTIVE INACTIVE	.005"	CIRCLE CONE	A1 A29	DEPICT ONLY THOSE WHICH ADD TO THE VALUE OR UTILITY OF THE MAP.
73	CEMETERY	SMALL	.005"	BOUNDARY CROSS	A32 A27 & A14	ROTATE TEMPLAT TO REQUIRED POSITION
		LARGE		BOUNDARY	ACTUAL SIZE	USE SHORT DASH FOR OUTLINE
74	MINE OR QUARRY		.005"	HANDLES HEADS	A34 A3	ROTATE TEMPLAT TO REQUIRED POSITION



9161 MAP SYMBOLS














DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

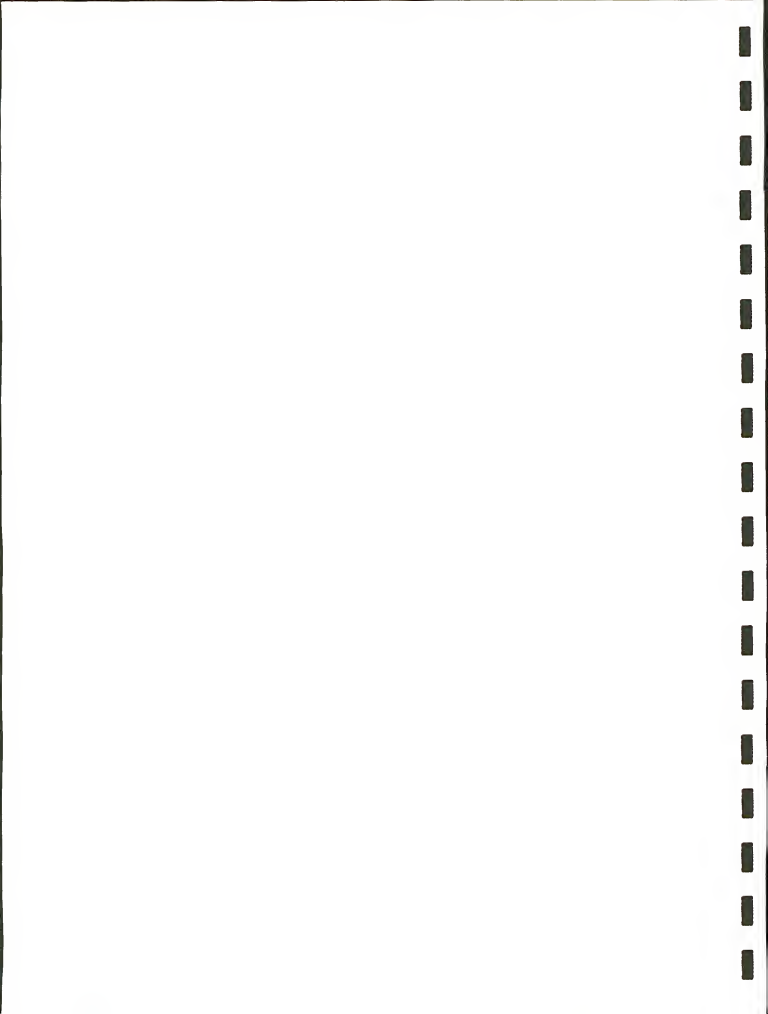
BLACK PLATE			WORKS AND STRUCTURES			SCALE 1/2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
75	CORRAL		.005"	CIRCLE C GATE □	A13 A16	
76	RUINS (LABEL)	 SMALL	.005"	BOUNDARY	.05" X .05"	USE SOLID OUTLINE
		 LARGE		BOUNDARY	ACTUAL SIZE	USE SHORT DASH FOR OUTLINE
77	CLIFF DWELLING		.005"	TOP □ BASE □	A21 A26	ROTATE TEMPLAT TO REQUIRED POSITION
78	GAGING STATION		.005"	CIRCLE ○	A13	1. ○ 2. ⊕ 3. ⊗
79	TELEPHONE OR TELEGRAPH LINE		.005"	POLE • SPACING	A3 .40"	SHOW ONLY WHEN NEEDED FOR ORIENTATION
80	POWER TRANS. LINE		.005"	POLE • DASH □ SPACE	A3 A16 .05"	POLES SPACED EVERY 4 DASHES
81	PIPE LINE		.008"	DASH □ ENDS □ SPACE	A10 A16 .05"	
82	ROAD GATE		.008"	BAR ENDS: WEIGHT LENGTH	.10" .010" .05"	



9161 MAP SYMBOLS









DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE OR BLUE PLATE			WORKS AND STRUCTURES			SCALE 1/2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLET NO.	INSTRUCTIONS
83	WINDMILL (SEE INSTRUCTIONS)		.005"	CIRCLE  CROSSBAR 	B1 B20	SCRIBE MILL SYMBOL ON BLACK PLATE, SCRIBE WELL SYMBOL ON BLUE PLATE.
84	RESERVOIR OR RETENTION DAM			BODY: LENGTH WIDTH WINGS 	.10" .025" A14	MINIMUM SIZE GIVEN--SHOW ACTUAL SIZE IF LARGER
85	DETENTION DAM					NOT APPLICABLE
86	CHECK DAM					NOT APPLICABLE
87	DIVERSION DAM					NOT APPLICABLE
88	LARGE DAM			BODY: LENGTH WIDTH	.15" .025"	MINIMUM SIZE GIVEN--SHOW ACTUAL SIZE IF LARGER
89	EARTH TANK OR CHARCO					NOT APPLICABLE
90	LOCATED OBJECT		.003"	CIRCLE  DOT 	A13 A4	NAME OBJECT



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE OR BLUE PLATE			DRAINAGE AND WATER FEATURES			SCALE 1/2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLET NO.	INSTRUCTIONS
91	RIVER OR LARGE STREAM			SINGLE-COLOR MAP SHORELINE WATERLINE	.010" .003"	
92	RIVER OR LARGE STREAM			MULTI-COLOR MAP SHORELINE WATER	.010" 1/2 TONE BLUE	ALL OPEN WATER AREAS ARE PRINTED IN 1/2 TONE BLUE ON MULTI-COLOR MAPS
93	PERENNIAL STREAM		.008" TO .012"	SOLID LINE		.008" IS MINIMUM WIDTH--VARY TO MAXIMUM OF .012" AS REQUIRED BY STREAM SIZES
94	INTERMITTENT STREAM OR WASH					NOT APPLICABLE ON 1/2" SCALE MAPS--SHOW AS PERENNIAL
95	LAKE OR POND			SINGLE-COLOR MAP SHORELINE WATERLINE	.010" .003"	
96	LAKE OR POND			MULTI-COLOR MAP SHORELINE WATER	.010" 1/2 TONE BLUE	
97	INTERMITTENT LAKE OR POND		.010"	DASH — SPACE INTERIOR	.10" .05" ZIP #453	
98	DRY LAKE OR POND		.010"	DASH — SPACE INTERIOR	.10" .05" ZIP #20	1. MULTI-COLOR MAP--APPLY ZIP TO INTERIOR ON NAME PLATE. 2. SINGLE-COLOR MAP--APPLY ZIP TO INTERIOR ON NAME PLATE.



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE OR BLUE PLATE

DRAINAGE AND WATER FEATURES

SCALE 1/2 INCH

ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
99	MARSH			STIK-UP	ZIP #602	PLACE STIK-UP ON NAME PLATE
100	SPRING (SEE INSTRUCTIONS)		.008 "	CIRCLE ○ BAR □ ARROW ▷	A1 A16 A14	SHOW COMPLETE SYMBOL ON BLUE OR BLACK PLATE AS REQUIRED
101	SPRING IMPROVED (SEE INSTRUCTIONS)		.008 "	CIRCLE ○ BODY ∥ WINGS ∠ BAR □ ARROW ▷	A1 A19 A14 A26 A14	DITTO EXCEPT IMPROVEMENT SHOWN ON BLACK PLATE
102	ARTESIAN WELL (SEE INSTRUCTIONS)		.008 "	CIRCLE ○ WINGS ∞	A1 A17	SHOW COMPLETE SYMBOL ON BLUE OR BLACK PLATE AS REQUIRED
103	WELL (SEE INSTRUCTIONS)		.008 "	CIRCLE ○	A1	DITTO
104	AQUEDUCT TUNNEL		.008 "	O/A WIDTH TICKS ∞ DASH — SPACE	.025 " A15 .075 " .020 "	TUNNEL LENGTH ACTUAL SIZE--- SCRIBE TUNNEL ON BLACK PLATE
105	DITCH OR CANAL		.008 "	DASH — ARROW ▷ SPACE	.25 " A29 .05 "	DEPICT ONLY THOSE WHICH ADD TO THE VALUE OR UTILITY OF THE MAP
106	FLUME OR AQUEDUCT		.008 "	ARROW ▷ SPACING	A29 .25 "	DITTO





9161 MAP SYMBOLS

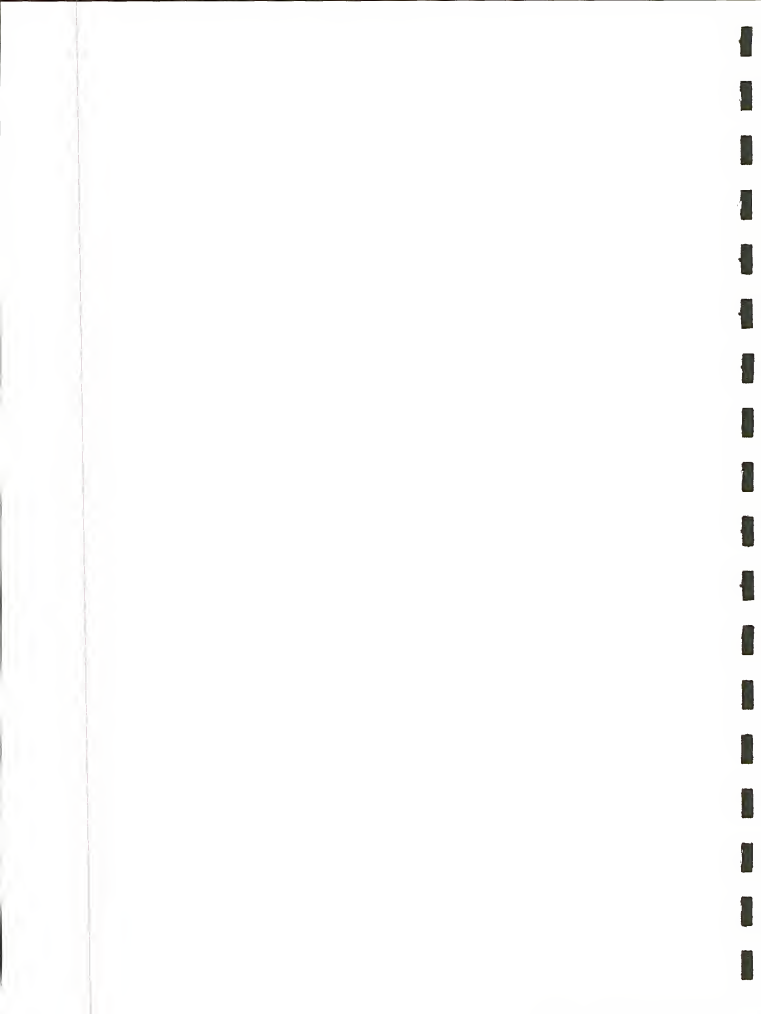
DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE

DRAINAGE AND WATER FEATURES






SCALE 1/8 INCH

ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLET NO.	INSTRUCTIONS
107	LEVEE OR DIKE		.004"	LINE — HACHURES 	VARIABLE A25	USE SIDES OF SQUARE



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			RELIEF FEATURES			SCALE 1/2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLET NO.	INSTRUCTIONS
108	BLUFFS, CLIFFS, RIMS		.004"	VEE	A5	DEPICT ONLY THOSE WHICH ADD TO THE VALUE OR UTILITY OF THE MAP.
109	PROMINENT RIDGE TOP		VARY .003" TO .005"			DITTO
110	PROMINENT PEAK		VARY .003" TO .005"			DITTO
111	SAND			STIK-UP	ZIP #304	DITTO APPLY STIK-UP ON NAME PLATE
112	LAVA			STIK-UP	ZIP #669	DITTO



9161 - MAP SYMBOL
LETTERING STANDARDS

ONE-HALF (1/2) INCH SCALE MULTIPLE-COLOR SERIES MAP

FEATURES				MONSEN NUMBERS	INSTRUCTIONS
AIRWAY BEACON	FENCE NAME	MINE	RUIN	346K6-51	
AIRPORT	FIRE TOOL CACHE	OIL OR GAS WELL	SCHOOL		
AQUEDUCT	FORD	PIPELINE	SKI AREA		
AQUEDUCT TUNNEL	FISH HATCHERY	POWERHOUSE	SHELTER		
BOUNDARY MONUMENT	FOREST NURSERY	POWERLINE	TANK (TYPE)		
BRIDGE	FLUME	PIER	TRI. STA. NAME		
CANAL	GAGING STATION	PRIVATE CAMP NAME	TEL. OR TEL.		
CABIN	GATE	QUARRY	LINE		
CATTLE GUARD	HOUSE	RADIO INSTALLATION	TUNNEL NAME		
CEMETERY (LARGE)	HATCHERY	RAILROAD	TRAIL NAME		
CHURCH	HIWAY NAME	ROAD NAME	U.S. MINERAL		
CLIFF DWELLING	LOOKOUT NAME	RESERVOIR	OR LOCATION		
CORRAL	LEVEE	RANCH	MONUMENT		
DAM (TYPE OR NAME)	LIGHTHOUSE	REFERENCE PT.	WATER TANK		
DITCH	LIVESTOCK ROUTE	RECREATION SITE	WINDMILL		
DOCK	LODGE	RESORT			
FERRY	LANDING FIELD	WELL (TYPE OR NAME)			
	MILL				
ARROYO	CAPE	GAP	LEDGE	PRAIRIE	THE LARGE AND VERY LARGE LETTERING CLASSIFICATIONS SHOULD BE USED TO DESIGNATE ONLY THOSE DIVIDES, MOUNTAINS, RIDGES, VALLEYS, & MTN. RANGES WHICH ENCOMPASS LARGE AREAS. * * * CONTINENTAL DIVIDE USE 206J18
BAR	CAVES	GORGE	MEADOW MDW.	RAVINE	
BASIN	CLIFF	GULCH	MESA	RIDGE	
BEACH	COULEE	HEAD	MOUNTAIN MTN.	RIM	
BENCH	CRAGS	HILL	MOUNTAIN RANGE	ROCK	
BEND	CRATER	HOLLOW	PASS	SADDLE	
BLUFF	CREST	ISLAND	PEAK PK.	SAND AREA	
BOTTOM	DIVIDE	KNOB	PENINSULA	SPUR	
BUTTE	DRAW	KNOLL	PLAIN	SUMMIT	
CANYON	FLAT	LAVA BED	PLATEAU	VALLEY	
			POINT PT.		



9161 - MAP SYMBOL
LETTERING STANDARDS

ONE-HALF (1/2) INCH SCALE MULTIPLE-COLOR SERIES MAP

FEATURES					MONSEN NUMBERS	INSTRUCTIONS
BAY	FALL	LAKE LK.	RIFFLE	SPRING SPR.	SMALL	
BRANCH	GEYSER	LICK	RUN	WALLOW	289K5L	
BROOK	GLACIER	MARSH OR SWAMP	SEEP	WASH	MEDIUM	
COVE	INLET	POND	SINK	WATER HOLE	289K6L	
CREEK CR.	LAGOON	RAPID	SLOUGH			
LARGE CREEK AND SMALL RIVER					289K8L	
GULF	LARGE LAKE	LARGE RIVER			289K8	
OCEAN	STRAIT	SOUND			289K18 TO 289K30	VARY AS REQUIRED BY AREA SIZE.
DISTRICT BOUNDARY					420A12	PLACE NAME EITHER ON BOUNDARY LINE OR WITHIN AREA- WHICHEVER IS THE BEST SOLUTION FOR IDENTIFICATION AND CLARITY.
RESOURCE AREA AND O&C MASTER UNIT BOUNDARY					420A11	
PLANNING UNIT BOUNDARY					420A10	
ALLOTMENT BOUNDARY					NOT APPLICABLE	
NATIONAL OR STATE BOUNDARY					420A9	
COUNTY BOUNDARY					420A8	



9161 - MAP SYMBOL
LETTERING STANDARDS

ONE-HALF ($\frac{1}{2}$) INCH SCALE MULTIPLE-COLOR SERIES MAP

FEATURES	MONSEN NUMBERS	INSTRUCTIONS
LAND GRANT BOUNDARY	420A7	PLACE NAME EITHER ON BOUNDARY LINE OR WITHIN AREA- WHICHEVER IS THE BEST SOLUTION FOR IDENTIFICATION AND CLARITY.
MISC. (INDIAN RESERVATIONS, NATIONAL MONUMENT, NATIONAL FOREST, RCA, OTHERS) BOUNDARY	420A7	
PARK BOUNDARY (COUNTY, STATE, OR FEDERAL)	SMALL <u>420A6</u> MEDIUM <u>420A8</u> LARGE 420A10	
STANDARD MERIDIANS AND PARALLELS; AND BASE LINES (CADASTRAL SURVEY)	420A7	
BENCH MARKS	340J6-1	
TOWN NAMES	SMALL <u>420-A8L</u> MEDIUM <u>420-A11L</u> LARGE 420-A13	
TOWNSHIP AND RANGE NUMBERS	340J12-6	SEE ILLUSTRATION #6 FOR PLACEMENT.



9161 - MAP SYMBOL
LETTERING STANDARDS

ONE-HALF ($\frac{1}{2}$) INCH SCALE MULTIPLE-COLOR SERIES MAP

FEATURES	MONSEN NUMBERS	INSTRUCTIONS
AERIAL PHOTO CENTER NUMBER	340J6-2	
SECTION NUMBERS	340J6-3	
STATE, FEDERAL, AND BLM ROUTE NUMBERS	204J6L	
FOREST AND RANGE TYPES	NOT APPLICABLE	
PRECISE ALTIMETER ELEVATIONS AND SPOT ELEVATIONS	NOT APPLICABLE	



9161 - MAP SYMBOL
LETTERING STANDARDS

ONE-HALF (1/2) INCH SCALE ONE-COLOR SERIES MAP

FEATURES				LEROY GUIDES	INSTRUCTIONS
AERIAL PHOTO NO.	DAM (TYPE OR NAME)	LOOKOUT NAME	RUIN	60V-C-000	
AIRPORT	DOCK	MILL	SCHOOL		
AIRWAY BEACON	FENCE NAME	MINE	SHELTER		
BENCH MARK	FIRE TOOL CACHE	OIL OR GAS WELL	SKI AREA		
BOUNDARY MONUMENT	FISH HATCHERY	PIER	TANK (TYPE)		
BRIDGE	FOREST NURSERY	POWERHOUSE	TRI. STA. NAME		
CABIN	GAGING STATION	PRIVATE CAMP NAME	TUNNEL NAME		
CATTLE GUARD	GATE	QUARRY	U.S. MINERAL		
CEMETERY (LARGE)	HATCHERY	RADIO INSTALLATION	OR LOCATION		
CHURCH	HOUSE	RANCH	MONUMENT		
CLIFF DWELLING	LANDING FIELD	RECREATION SITE	WATER TANK		
CORRAL	LIGHTHOUSE	REFERENCE PT.	WELL (TYPE)		
	LODGE	RESORT	WINDMILL		
ARROYO	CAPE	GAP	LEDGE	SMALL 60V-CL-000 OR 80V-CL-000 MEDIUM 100V-CL-00 OR 120V-CL-0 LARGE 140V-C-0 OR 175V-C-1 VERY LARGE 200V-C-2 OR 240V-C-2	THE LARGE AND VERY LARGE LETTERING CLASSIFICATIONS SHOULD BE USED TO DESIGNATE ONLY THOSE DIVIDES, MOUNTAINS, RIDGES, VALLEYS, AND MOUNTAIN RANGES WHICH ENCOMPASS LARGE AREAS. * * * CONTINENTAL DIVIDE USE 240V-C-2
BAR	CAVE	GORGE	MEADOW MDW.		
BASIN	CLIFF	GULCH	MESA		
BEACH	COULEE	HEAD	MOUNTAIN RANGE		
BENCH	CRAIG	HILL	MOUNTAIN MTN.		
BEND	CRATER	HOLLOW	PASS		
BLUFF	CREST	ISLAND	PEAK PK.		
BOTTOM	DIVIDE	KNOB	PENINSULA		
BUTTE	DRAW	KNOLL	PLAIN		
CANYON	FLAT	LAVA BED	PLATEAU		
			POINT PT.		
			PRAIRIE		
			RAVINE		
			RIDGE		
			RIM		
			ROCK		
			SADDLE		
			SAND AREA		
			SPUR		
			SUMMIT		
			VALLEY		



9161 - MAP SYMBOL
LETTERING STANDARDS

ONE-HALF (1/2) INCH SCALE ONE-COLOR SERIES MAP

FEATURES					LEROY GUIDES	INSTRUCTIONS
BAY	FALL	LAKE LK.	RIFFLE	SPRING SPR.	SMALL 60S-CL-000	
BRANCH	GEYSER	LICK	RUN	WALLOW	LARGE 80S-CL-000	
BROOK	GLACIER	MARSH OR SWAMP	SEEP	WASH		
COVE	INLET	POND	SINK	WATER HOLE		
CREEK CR.	LAGOON	RAPID	SLOUGH			
LARGE CREEK AND SMALL RIVER					80S-C-000	
GULF	LARGE LAKE	LARGE RIVER			100S-C-00	
OCEAN	STRAIT	SOUND			140S-C-1 200S-C-2	VARY AS REQUIRED BY AREA SIZE
AQUEDUCT	FERRY	LEVEE	ROAD NAME	TRAIL NAME	60S-C-000	
AQUEDUCT TUNNEL	FORD	PIPELINE	RESERVOIR	LIVESTOCK		
CANAL	FLUME	POWERLINE	TELEPHONE OR	ROUTE		
DITCH	HIWAY NAME	RAILROAD	TELEGRAPH LINE			
DISTRICT BOUNDARY					3242C-V-18PC 0- (FILL)	PLACE NAME EITHER ON BOUNDARY LINE OR WITHIN AREA-WHICHEVER IS THE BEST SOLUTION FOR IDENTIFICATION AND CLARITY
RESOURCE AREA AND O&C MASTER UNIT BOUNDARY					175V-C2	
PLANNING UNIT BOUNDARY					175V-CL-2	



9161 - MAP SYMBOL
LETTERING STANDARDS

ONE-HALF ($\frac{1}{2}$) INCH SCALE ONE-COLOR SERIES MAP

FEATURES	LEROY GUIDES	INSTRUCTIONS
ALLOTMENT BOUNDARY	140V-C-1	PLACE NAME EITHER ON BOUNDARY LINE OR WITHIN AREA-WHICHEVER IS THE BEST SOLUTION FOR IDENTIFICATION AND CLARITY.
NATIONAL OR STATE BOUNDARY	140V-C-1	
COUNTY BOUNDARY	120V-C-1	
LAND GRANT BOUNDARY	100V-CL-0	
MISC. (INDIAN RESERVATIONS, NATIONAL MONUMENT, NATIONAL FOREST, RCA, OTHERS) BOUNDARY	100V-C-0	
PARK BOUNDARY (COUNTY, STATE, OR FEDERAL)	SMALL <u>80V-C-000</u> MEDIUM <u>100V-C-00</u> LARGE 120V-CL-0	
TOWN NAMES	SMALL <u>100V-CL-00</u> MEDIUM <u>120V-CL-0</u> LARGE 120V-C-0	



9161 - MAP SYMBOL
LETTERING STANDARDS

ONE-HALF ($\frac{1}{2}$) INCH SCALE ONE-COLOR SERIES MAP

FEATURES	LEROY GUIDES	INSTRUCTIONS
TOWNSHIP AND RANGE NUMBERS	140V-C-1	SEE ILLUSTRATION #3 FOR PLACEMENT.
STANDARD MERIDIANS AND PARALLELS; AND BASE LINES (CADASTRAL SURVEY)	100V-C-00	
SECTION NUMBERS	60V-C-000	
STATE, FEDERAL, AND BLM ROUTE NUMBERS	MONSEN NO. 204J6L	
FOREST OR RANGE TYPES	NOT APPLICABLE	
PRECISE ALTIMETER ELEVATIONS AND SPOT ELEVATIONS	NOT APPLICABLE	
STATUS SYMBOL	60V-C-000	




















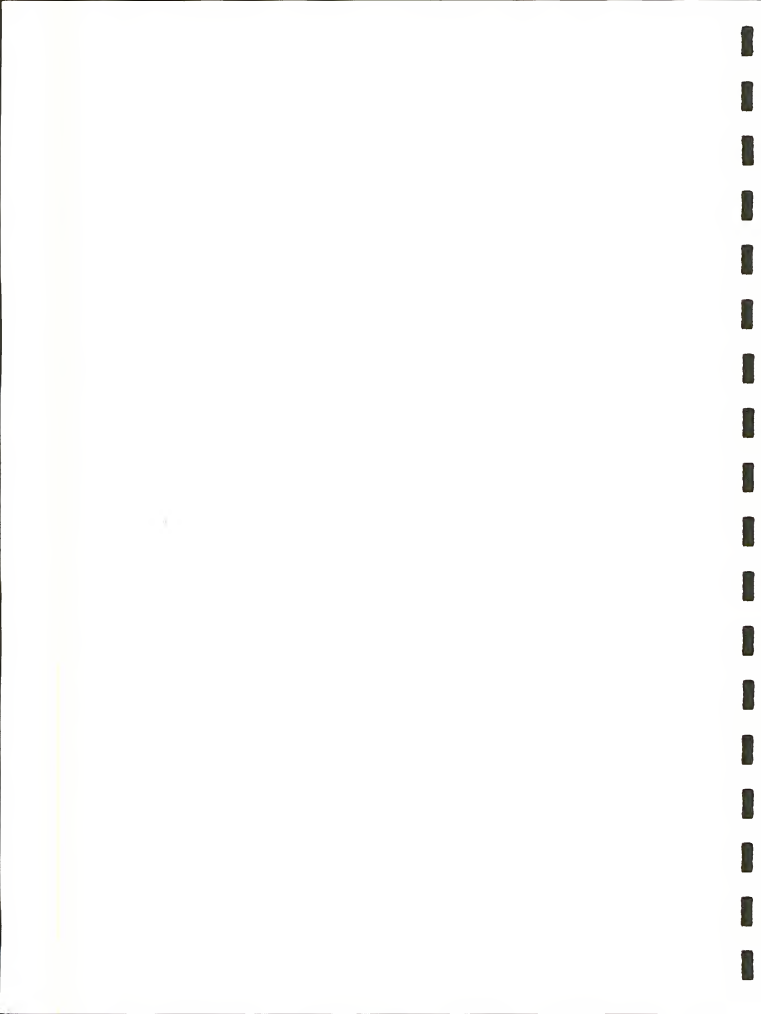
1"
SCALE
SPECIFICATIONS



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

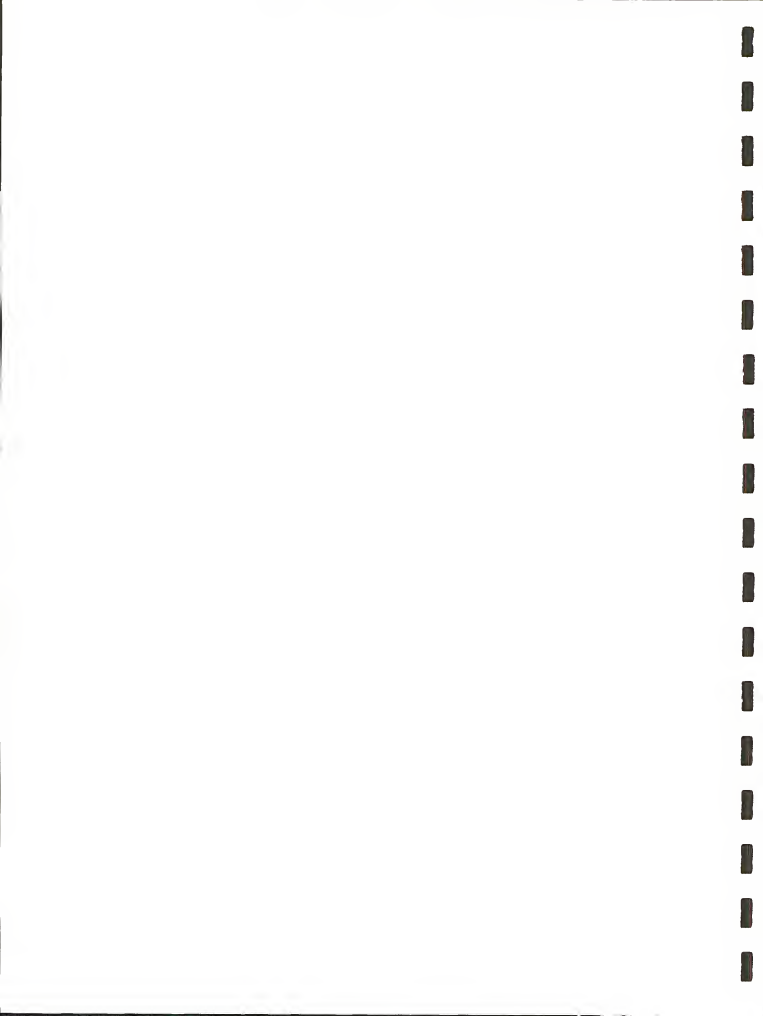
BLACK PLATE				BOUNDARIES		SCALE 1 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
1	DISTRICT		.025"	SOLID LINE		STRADDLES BOUNDARY LINE--BREAK LINE FOR MAJOR FEATURES, E.G., FOUND SECTION CORNER, CONTROL STATION, ETC.
2	RESOURCE AREA AND O&C MASTER UNIT		.020"	DASH  SPACE	.75" .10"	DITTO
3	PLANNING UNIT		.020"	DASH  SPACE	.50" .10"	DITTO
4	ALLOTMENT			DOT  SPACE	A2 .10"	DITTO
5	NATIONAL OR STATE		.017"	DASHES  SPACE	.50" & .15" .05"	DITTO
6	COUNTY		.015"	DASHES  SPACE	.50" & .15" .05"	DITTO
7	LAND GRANT		.015"	DASH  DOTS  SPACE	.50" A3 .05"	DITTO
8	MISCELLANEOUS (RCA, RESERVATIONS, ETC.)		.015"	DASH  DOT  SPACE	.50" A3 .05"	DITTO



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

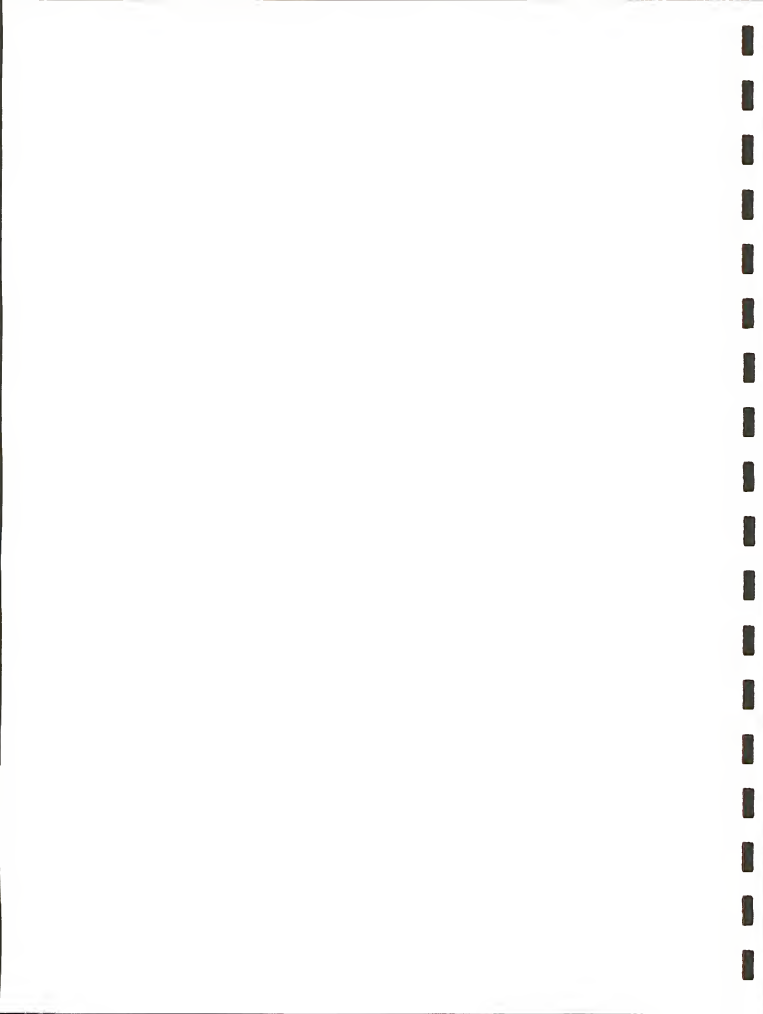
BLACK PLATE			BOUNDARIES			SCALE 1 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLET NO.	INSTRUCTIONS
9	PARK (STATE, COUNTY OR LOCAL)	— — — — —	.015"	DASH — SPACE	.30" .05"	STRADDLES BOUNDARY LINE--BREAK LINE FOR MAJOR FEATURES, E.G., FOUND SECTION CORNER, CONTROL STATION, ETC.
10	TOWNSHIP AND RANGE	SURVEYED PROTRACTED	.012"	SOLID LINE DASH — SPACE	.20" .05"	DASHES TO BE SCRIBED SO THAT CORNER INTERSECTIONS ARE EQUAL IN LENGTH.
11	SECTION	SURVEYED PROTRACTED	.008"	SOLID LINE DASH — SPACE	.20" .05"	DITTO
12	SECTION STATUS SUBDIVISION	—————	.004"	SOLID LINE		
13	MINERAL SURVEYS & DLC'S	—————	.004"	SOLID LINE		EXTERIOR BDY. OF SOLID BLOCKS OR CLUSTERS. ONLY SHOW THOSE REQUIRED TO DEFINE BLM OWNERSHIP.
14	CONTINENTAL DIVIDE	— — — — —	.015"	DASH — SPACE	.60" .10"	



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			MARKERS AND MONUMENTS			SCALE 1 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
15	SECTION CORNER-- EXISTENT (FOUND, PHOTO ID POSITIVE)				A27	
16	SECTION CORNER-- EXISTENT (FOUND, PHOTO ID NOT POSITIVE)		.008 "		A27	
17	SECTION CORNER-- RECOGNIZED (FOUND, PHOTO ID POSITIVE)				A27	ROTATE TEMPLAT TO REQUIRED POSITION
18	SECTION CORNER-- RECOGNIZED (FOUND, PHOTO ID NOT POSITIVE)		.008 "		A27	DITTO
19	SECTION CORNER SEARCHED FOR-- NOT FOUND					NOT APPLICABLE
20	ROUTE MARKER-- INTERSTATE		.005 "		"A" TEMPLAT	PLACE NEXT TO HIGHWAY ORIENTED IN NORTH AND SOUTH POSITION.
21	ROUTE MARKER--U.S.		.005 "		"A" TEMPLAT	DITTO
22	ROUTE MARKER--STATE		.005 "		"A" TEMPLAT	DITTO
















9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE

MARKERS AND MONUMENTS

SCALE 1 INCH

ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
23	BLM ROAD SYSTEM MARKER		.005"		B34 B9	PLACE NEXT TO HIGHWAY ORIENTED IN NORTH AND SOUTH POSITION
24	TRIANGULATION STATION		.010"	TRIANGLE  DOT 	B19	PLACE DOT IN CENTER
25	BENCH MARK	BM X 134	.010"	CROSSBAR 	B14	ROTATE TEMPLAT TO REQUIRED POSITION
26	PRECISE ALTIMETER ELEVATION	+ 134				NOT APPLICABLE
27	SPOT ELEVATION (UNCHECKED)	X 134				NOT APPLICABLE
28	REFERENCE POINT INDEPENDENT SURVEY-- HORIZONTAL OR VERTICAL	 100	.010"	SQUARE  DOT 	B15	PLACE DOT IN CENTER
29	U.S. MINERAL OR LOCATION MONUMENT				B19	
30	BOUNDARY MONUMENT		.010"	SQUARE  DOT 	B15	PLACE DOT IN CENTER









9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE

MARKERS AND MONUMENTS

SCALE 1 INCH

ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLET NO.	INSTRUCTIONS
31	SECTION IDENTIFICATION	6				PLACE IN CENTER OF SECTION-- NUMBER ALL SECTIONS.
32	AERIAL PHOTO CENTER (POSITION & I.D.)	• 1 - 3			B1	SHOW ONLY THAT PHOTOGRAPHY USED IN ORIGINAL MAPPING OR EXTENSIVE AUXILIARY MAPPING.
33	TOWNS AND CITIES (CORP. LIMIT BDY.)		.010"	BDY. SYM. • DASH ——— SPACE INTERIOR	DOT A4 .50" .10" ZIP #23	1. OUTLINE LIMITS OF TOWN OR CITY 2. APPLY ZIP TO INTERIOR ON NAME PLATE.
34	BLM OFFICE		.008"	BLDG.  BASE  POLE  FLAG 	B15 B13 B15 B16	3. PLACEMENT OF NAME IN OR OUT OF BOUNDARY IS OPTIONAL.














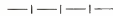


9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE

WORKS AND STRUCTURES









SCALE 1 INCH

ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
35	ALL WEATHER ROAD		.005"	O/A WIDTH	.025"	O/A DESIGNATES OVERALL WIDTH
	DIVIDED HWY.		.005"	O/A WIDTH	.045"	
36	SEASONAL USE ROAD		.005"	O/A WIDTH DASH = SPACE	.025" .075" .020"	DITTO
37	PRIMITIVE ROAD		.005"	O/A WIDTH DASH = SPACE INSERT	.025" .075" .020" .025"	PLACE INSERTS WITHIN ALTERNATE DASHES
38	RAILROAD SINGLE TRACK		.005"	CROSSTIES 	A10	
39	RAILROAD DOUBLE TRACK		.005"	O/A WIDTH TIES: LENGTH  SPACE	.025" A21 A10	USE LONG SIDE OF A21
40	RAILROAD ABANDONED		.005"	DASH — CROSSTIES  SPACE	.15" A10 .05"	
41	TRAIL		.005"	DASH — SPACE	.075" .020"	
42	LIVESTOCK ROUTE (ESTABLISHED)		.008"	DASH  INSERT  SPACE	A10 .10" .10"	PLACE IN CENTER OF SPACE



9161 MAP SYMBOLS









DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			WORKS AND STRUCTURES			SCALE 1 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
43	ROAD BRIDGE		.005"	TICKS ∞ ∞	A15	SHOW BRIDGES ACTUAL SIZE EXCEPT THOSE LESS THAN .10" IN LENGTH
44	RAILROAD BRIDGE		.005"	TICKS ∞ ∞	A15	DITTO
45	FOOT BRIDGE		.005"	TICKS ∞ ∞	A15	DITTO
46	FERRY				A17	
47	ROAD FORD		.005"	DASH = SPACE	.075" .020"	
48	TRAIL FORD		.005"	DASH = SPACE	.075" .020"	
49	ROAD TUNNEL		.005"	O/A WIDTH TICKS ∞ ∞ DASH = SPACE	.025" A15 .075" .020"	SHOW TUNNELS ACTUAL SIZE EXCEPT THOSE LESS THAN .10" IN LENGTH
50	RAILROAD TUNNEL		.005"	O/A WIDTH TICKS ∞ ∞ DASH = SPACE	.025" A15 .075" .020"	DITTO



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			WORKS AND STRUCTURES			SCALE 1. INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
51	FENCE (PROPOSED)					A DISTRICT SUPPLEMENT--NOT PART OF PRINTED MAP
52	FENCE		.005"	TICKS SPACE	A15 .30"	SHOW ONLY THOSE OBTAINED FROM FIELD (DISTRICT) EDIT
53	ROAD FENCED--ONE SIDE		.005"	TICKS SPACE	A15 .30"	DITTO
54	ROAD FENCED--BOTH SIDES		.005"	TICKS SPACE	A15 .30"	DITTO
55	RAILROAD FENCED--ONE SIDE		.005"	TICKS SPACE	A15 BETWEEN TIES	DITTO
56	RAILROAD FENCED--BOTH SIDES		.005"	TICKS SPACE	A15 BETWEEN TIES	DITTO
57	CATTLEGUARD		.005"	O/A WIDTH LENGTH TICKS	A10 A10 A15	
58	RECREATION SITE		.005"	LARGE SMALL BASE	△ ▲ ▬ B19 A24 A10	

















9161 MAP SYMBOLS

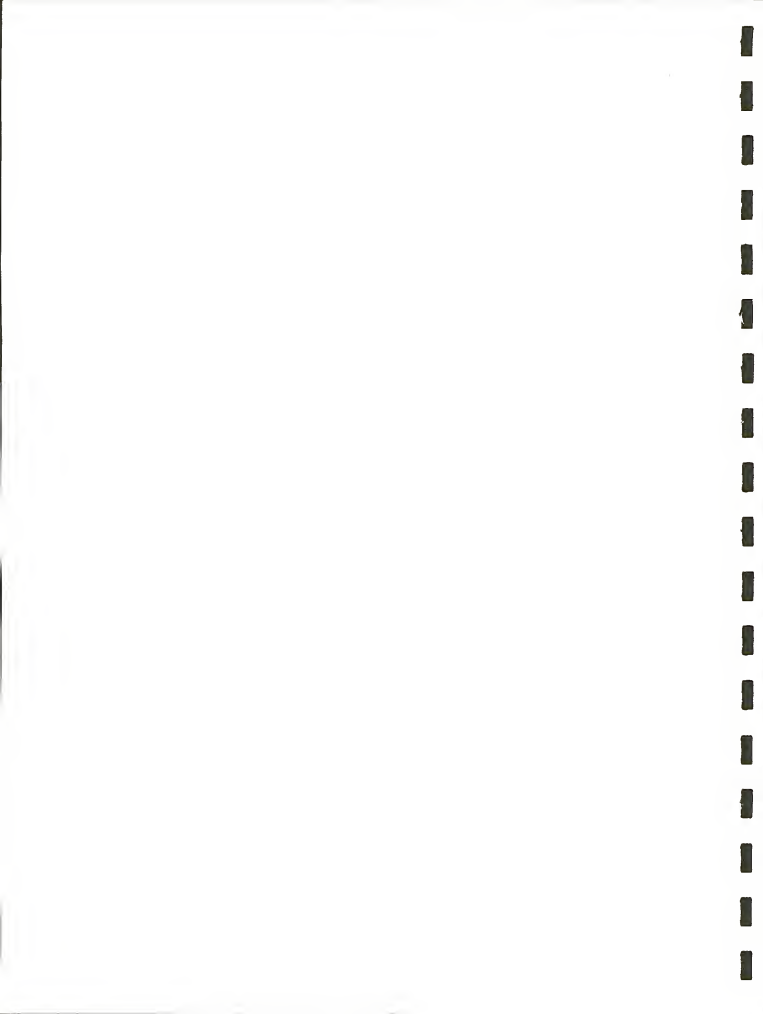
DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE

WORKS AND STRUCTURES

SCALE 1 INCH

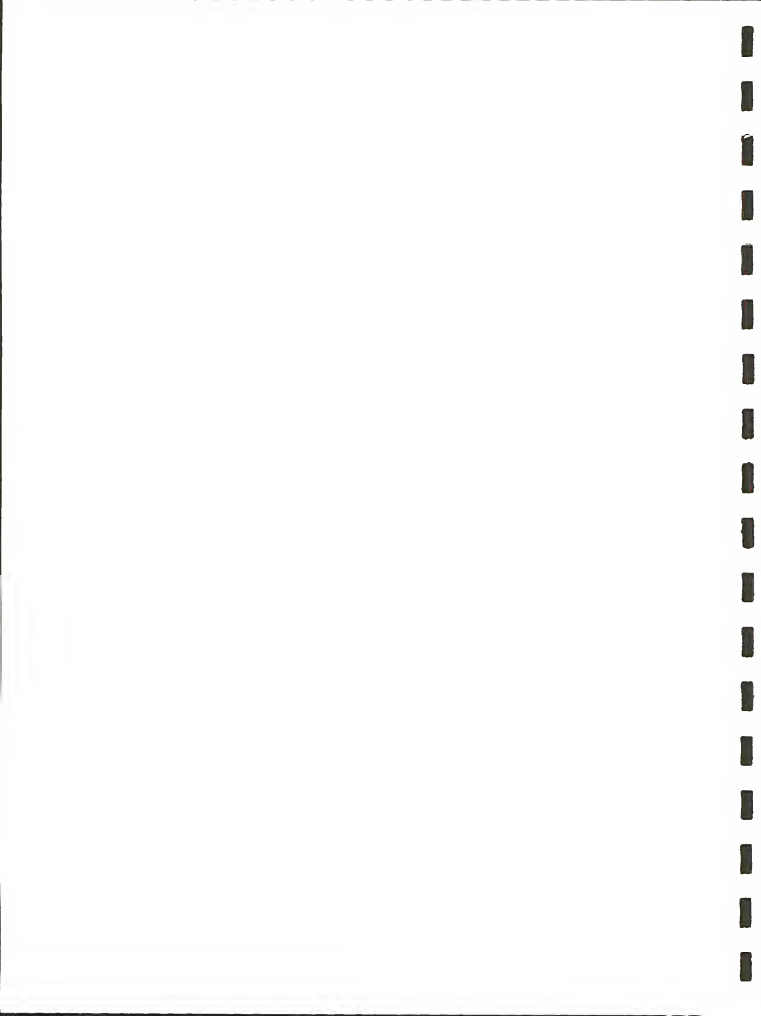
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
59	TANKS (LABEL AS TO TYPE)	• 	.005"	SMALL ○○○ LARGE ●●● CROSSHATCH	A1, 2, OR 3 A13 OR 30 3 OR 4/45"	
60	FIRE L.O. (PRIMARY)		.005"	CIRCLE  TRIANGLE 	B4 B19	
	& TRIANGULATION STA.	 (NAME)		DOT •	A4	
61	FIRE L.O. (SECONDARY)		.005"	LARGE TRIANGLE  TRIANGLE 	B4 B19	ROTATE TEMPLAT TO MAKE CROSS IN CENTER SCRIBE LARGE CIRCLE FIRST.
	& TRIANGULATION STA.	 (NAME)		SMALL CROSS ○○ □□	B1 B16	
62	FIRE TOOL CACHE		.005"	BOX □ TOP ◇	A32 A32	ROTATE TEMPLAT TO REQUIRED POSITION
63	BUILDINGS				USE APPROPRIATE TEMPLAT SIZE	DEPICT ONLY THOSE BUILDINGS WHICH ADD VALUE OR UTILITY TO THE MAP, E.G. INDICATE SMALL SETTLEMENTS, POST OFFICES, SHELTER IN REMOTE AREAS, &
64	BUILDINGS (ABANDONED)		.005"		DITTO	SIMILAR CATAGORIES.
65	SCHOOL		.005"	BLDG. □ POLE FLAG -	A16 A19 A8	ROTATE TEMPLAT TO REQUIRED POSITION
66	CHURCH		.005"	BLDG. □ POLE □ CROSS □	A16 A21 A14	ROTATE TEMPLAT TO REQUIRED POSITION



9161 MAP SYMBOLS

















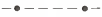


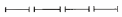




DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			WORKS AND STRUCTURES			SCALE 1 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
67	SAWMILL		.005"	BLDG. BASE	A30 A10	$\frac{1}{2}$ CIRCLE
68	SHELTER		.005"	TOP SIDES BASE	B20 A19 & A21 B20	
69	BLM RADIO INSTALLATION		.005"	BLDG. ANTENNA	A16 A14	1. 2. 3.
70	AIRFIELD			GUIDES 	B20 ST. HWY. SYM.	1. (PENCIL) 3. DO NOT SHOW RUNWAYS 2. 4. RUNWAYS
71	AIRWAY BEACON			GUIDES 	B4 A3	1. (PENCIL) 3. 2. 4.
72	OIL OR GAS WELLS	ACTIVE INACTIVE	.005"	CIRCLE CONE	A13 A28	DEPICT ONLY THOSE WHICH ADD TO THE VALUE OR UTILITY OF THE MAP.
73	CEMETERY	SMALL LARGE	.005"	BOUNDARY CROSS BOUNDARY	A34 A32 & A16 ACTUAL SIZE	ROTATE TEMPLAT TO REQUIRED POSITION USE SHORT DASH FOR OUTLINE
74	MINE OR QUARRY		.005"	HANDLES HEADS	B14 B1	



9161 MAP SYMBOLS


















DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			WORKS AND STRUCTURES			SCALE 1 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
75	CORRAL		.005 "	CIRCLE  GATE 	B2 B16	ROTATE TEMPLAT TO REQUIRED POSITION
76	RUINS (LABEL)	 SMALL	.005 "	BOUNDARY 	A14	USE SOLID OUTLINE
		 LARGE		BOUNDARY	ACTUAL SIZE	USE SHORT DASH FOR OUTLINE
77	CLIFF DWELLING		.005 "	TOP  BASE 	A26 A10	
78	GAGING STATION		.005 "	CIRCLE 	A30	1.  2.  3. 
79	TELEPHONE OR TELEGRAPH LINE		.005 "	POLE  SPACING	A2 .50 "	SHOW ONLY WHEN NEEDED FOR ORIENTATION
80	POWER TRANS. LINE		.005 "	POLE  DASH  SPACE	A2 A19 .05 "	POLES SPACED EVERY 4 DASHES
81	PIPE LINE		.008 "	DASH  ENDS  SPACE	.25 " A16 .05 "	
82	ROAD GATE		.008 "	BAR  ENDS: WEIGHT LENGTH	.10 " .015 " .05 "	



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

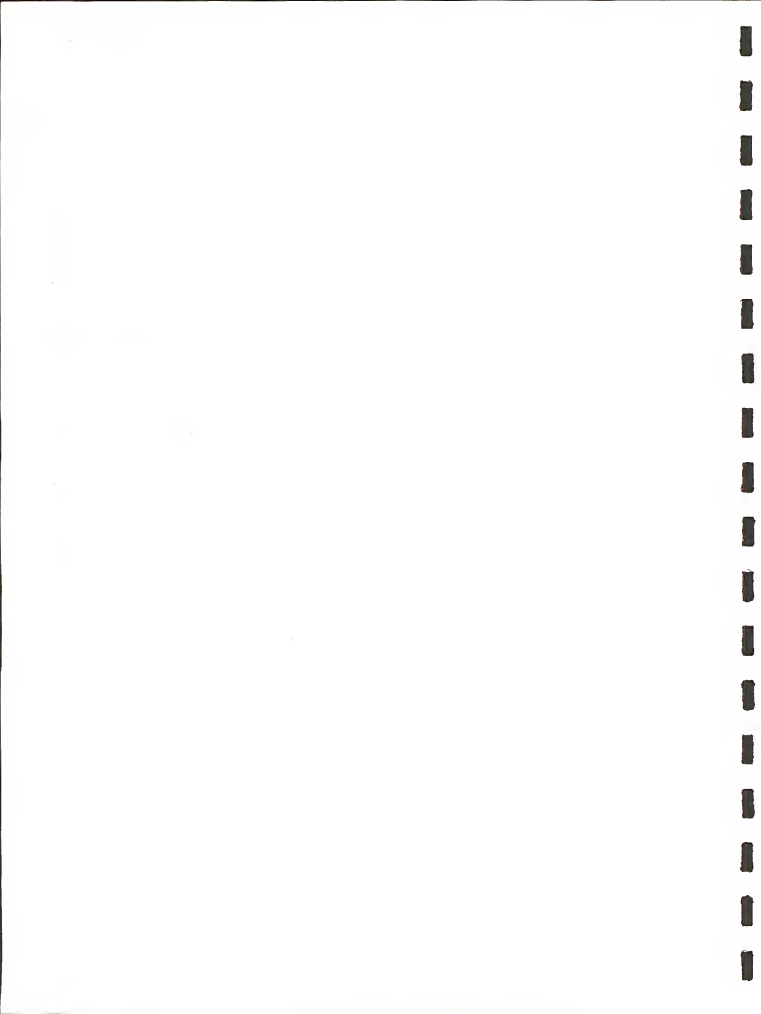
BLACK PLATE			WORKS AND STRUCTURES			SCALE 1 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
83	WINDMILL		.005"	CIRCLE  CROSSBAR 	B1 B20	
84	RESERVOIR OR RETENTION DAM			BODY: LENGTH WIDTH  WINGS 	.15" .05" A27	MINIMUM SIZE GIVEN--SHOW ACTUAL SIZE IF LARGER
85	DETENTION DAM			BODY: LENGTH WIDTH	.15" .05"	DITTO
86	CHECK DAM			BODY: LENGTH WIDTH WINGS 	.20" .05" .05"	DITTO
87	DIVERSION DAM			BODY: LENGTH WIDTH	.15" .05"	DITTO
88	LARGE DAM			BODY: LENGTH WIDTH	.20" .05"	DITTO
89	EARTH TANK OR CHARGO		.008"	ENDS  SIDES 	B2 B15	
90	LOCATED OBJECT		.003"	CIRCLE  DOT 	A13 A4	NAME OBJECT



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			DRAINAGE AND WATER FEATURES			SCALE 1 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
91	RIVER OR LARGE STREAM			SHORELINE WATERLINE	.010" .003"	
92	PERENNIAL STREAM		.008" TO .012"	SOLID LINE		.008" IS MINIMUM WIDTH--VARY TO MAXIMUM OF .012" AS REQUIRED BY STREAM SIZES
93	INTERMITTENT STREAM OR POND		.008"	DASH — DOTS (SPACE)	.40" .20"	
94	LAKE OR POND			SHORELINE WATERLINE	.010" .003"	
95	INTERMITTENT LAKE OR POND		.010"	DASH — SPACE INTERIOR	.15" .05" ZIP #453	
96	DRY LAKE OR POND		.010"	DASH — SPACE INTERIOR	.15" .05" ZIP #19	1. OUTLINE AREA ON SCRIBE BASE 2. APPLY ZIP TO INTERIOR ON NAME PLATE
97	MARSH			STIK-UP	ZIP #602	PLACE STIK-UP ON NAME PLATE
98	SPRING		.008"	CIRCLE ○ BAR □ ARROW ◇	A13 A34 A27	


























9161 MAP SYMBOLS

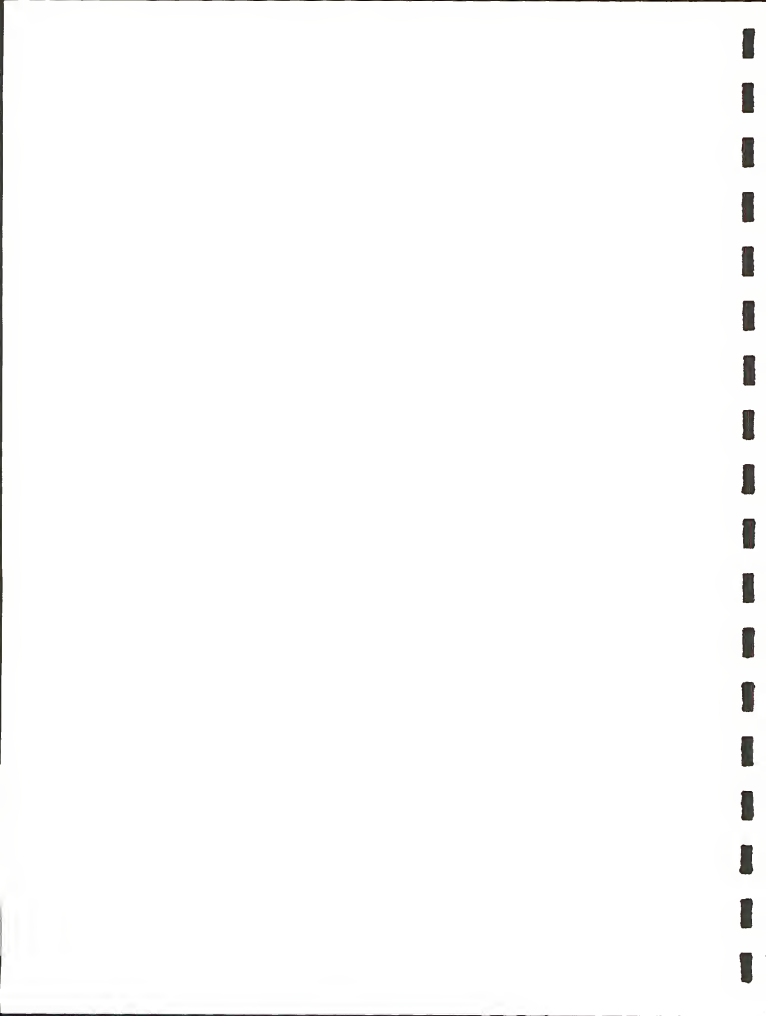
DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE

DRAINAGE AND WATER FEATURES






SCALE 1 INCH

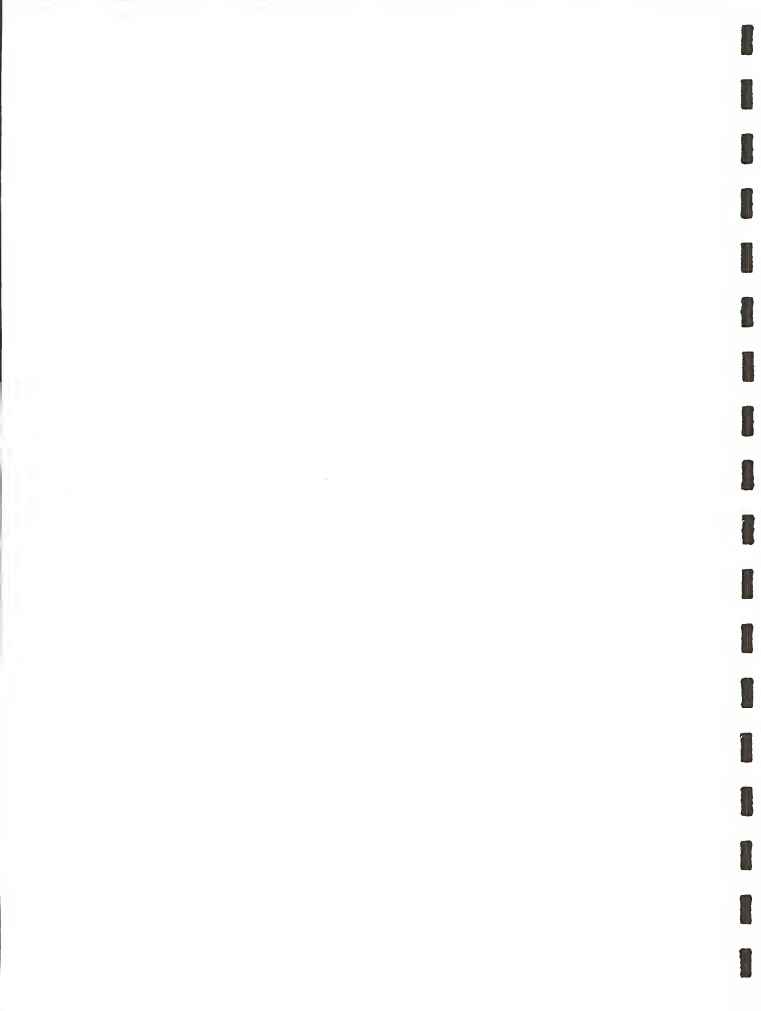
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLET NO.	INSTRUCTIONS
99	SPRING IMPROVED		.008"	CIRCLE BODY WINGS BAR ARROW    	A13 A26 A14 A26 A27	ROTATE TEMPLETS TO REQUIRED POSITIONS
100	ARTESIAN WELL		.008"	CIRCLE WINGS  	A13 A33	
101	WELL		.008"	CIRCLE 	A13	
102	AQUEDUCT TUNNEL		.008"	O/A WIDTH TICKS DASH SPACE    	.025" A15 .075" .020"	LENGTH TO BE ACTUAL SIZE
103	DITCH OR CANAL		.008"	DASH ARROW SPACE  	.50" A28 .075"	DEPICT ONLY THOSE WHICH ADD TO THE VALUE OR UTILITY OF THE MAP.
104	FLUME OR AQUEDUCT		.008"	ARROW SPACING 	A28 .50"	DITTO
105	LEVEE OR DIKE		.005"	LINE HACHURES  	VARIABLE A15	DITTO USE SIDES OF SQUARE



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			RELIEF FEATURES			SCALE 1 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLET NO.	INSTRUCTIONS
106	BLUFFS, CLIFFS, RIMS		.005"	VEE	A5	DEPICT ONLY THOSE WHICH ADD TO THE VALUE OR UTILITY OF THE MAP.
107	PROMINENT RIDGE TOP			HACHURES	VARY .003" TO .005"	DITTO
108	PROMINENT PEAK			HACHURES	VARY .003" TO .005"	DITTO
109	SAND			STIK-UP	ZIP #304	DITTO APPLY STIK-UP ON NAME PLATE
110	LAVA			STIK-UP	ZIP #669	DITTO



9161 - MAP SYMBOL
LETTERING STANDARDS

ONE (1) INCH SCALE ONE-COLOR SERIES MAP

FEATURES				LEROY GUIDES	INSTRUCTIONS
AERIAL PHOTO NO.	DAM (TYPE OR NAME)	LOOKOUT NAME	RUIN	80V-C-000	
AIRPORT	DOCK	MILL	SCHOOL		
AIRWAY BEACON	FENCE NAME	MINE	SHELTER		
BENCH MARK	FIRE TOOL CACHE	OIL OR GAS WELL	SKI AREA		
BOUNDARY MONUMENT	FISH HATCHERY	PIER	TANK (TYPE)		
BRIDGE	FOREST NURSERY	POWERHOUSE	TRI. STA. NAME		
CABIN	GAGING STATION	PRIVATE CAMP NAME	TUNNEL NAME		
CATTLE GUARD	GATE	QUARRY	U.S. MINERAL		
CEMETERY (LARGE)	HATCHERY	RADIO INSTALLATION	OR LOCATION		
CHURCH	HOUSE	RANCH	MONUMENT		
CLIFF DWELLING	LANDING FIELD	RECREATION SITE	WATER TANK		
CORRAL	LIGHTHOUSE	REFERENCE PT.	WELL (TYPE)		
	LODGE	RESORT	WINDMILL		
ARROYO	CAPE	GAP	LEDGE	SMALL 80V-CL-000 OR <u>100V-CL-000</u> MEDIUM 100V-CL-00 OR <u>120V-CL-0</u> LARGE 140V-C-1 OR <u>175V-C-2</u> VERY LARGE 200V-C-2 TO 290V-C-2	THE LARGE AND VERY LARGE LETTERING CLASSIFICATIONS SHOULD BE USED TO DESIGNATE ONLY THOSE DIVIDES, MOUNTAINS, RIGGES, VALLEYS AND MOUNTAIN RANGES WHICH ENCOMPASS LARGE AREAS. * * * CONTINENTAL DIVIDE USE 290V-C-2
BAR	CAVE	GORGE	MEADOW MOW.		
BASIN	CLIFF	GULCH	MESA		
BEACH	COULEE	HEAD	MOUNTAIN RANGE		
BENCH	CRAG	HILL	MOUNTAIN MTN.		
BEND	CRATER	HOLLOW	PASS		
BLUFF	CREST	ISLAND	PEAK PK.		
BOTTOM	DIVIDE	KNOB	PENINSULA		
BUTTE	DRAW	KNOLL	PLAIN		
CANYON	FLAT	LAVA BED	PLATEAU		
			POINT PT.		
			PRAIRIE		
			RAVINE		
			RIDGE		
			RIM		
			ROCK		
			SADDLE		
			SAND AREA		
			SPUR		
			SUMMIT		
			VALLEY		



9161 - MAP SYMBOL
LETTERING STANDARDS

ONE (1) INCH SCALE ONE-COLOR SERIES MAP

FEATURES					LEROY GUIDES	INSTRUCTIONS
BAY	FALL	LAKE LK.	RIFFLE	SPRING SPR.	SMALL	
BRANCH	GEYSER	LICK	RUN	WALLOW	<u>80S-CL-000</u>	
BROOK	GLACIER	MARSH OR SWAMP	SEEP	WASH	LARGE	
COVE	INLET	POND	SINK	WATER HOLE	100S-CL-00	
CREEK CR.	LAGOON	RAPID	SLOUGH			
LARGE CREEK AND SMALL RIVER					100S-C-00	
GULF	LARGE LAKE	LARGE RIVER			120S-C-0	
OCEAN	STRAIT	SOUND			175S-C-1 TO 240S-C-2	VARY AS REQUIRED BY AREA SIZE.
AQUEDUCT	FERRY	LEVEE	ROAD NAME	TRAIL NAME	80S-C-000	
AQUEDUCT TUNNEL	FORD	PIPELINE	RESERVOIR	LIVESTOCK		
CANAL	FLUME	POWERLINE	TELEPHONE OR	ROUTE		
DITCH	HIWAY NAME	RAILROAD	TELEGRAPH LINE			
DISTRICT BOUNDARY					3241K-V-24PC No. 1- (FILL)	PLACE NAME EITHER ON BOUNDARY LINE OR WITHIN AREA-WHICHEVER IS THE BEST SOLUTION FOR IDENTIFICATION AND CLARITY.
RESOURCE AREA AND O&C MASTER UNIT BOUNDARY					3242C-V-18PC No. 00- (OPEN)	
PLANNING UNIT BOUNDARY					3242C-V-18PL No. 00- (OPEN)	



9161 - MAP SYMBOL
LETTERING STANDARDS

ONE (1) INCH SCALE ONE-COLOR SERIES MAP

FEATURES	LEROY GUIDES	INSTRUCTIONS
ALLOTMENT BOUNDARY	175V-CL-1	PLACE NAME EITHER ON BOUNDARY LINE OR WITHIN AREA-WHICHEVER IS THE BEST SOLUTION FOR IDENTIFICATION AND CLARITY.
NATIONAL OR STATE BOUNDARY	175V-C-2	
COUNTY BOUNDARY	140V-C-0	
LAND GRANT BOUNDARY	120V-CL-0	
MISC. (INDIAN RESERVATIONS, NATIONAL MONUMENT, NATIONAL FOREST, RCA, OTHERS) BOUNDARY	120V-C-0	
PARK BOUNDARY (COUNTY, STATE, OR FEDERAL)	SMALL <u>100V-C-00</u> MEDIUM <u>120V-C-0</u> LARGE 140V-CL-1	
TOWN NAMES	SMALL <u>100V-CL-00</u> MEDIUM <u>120V-CL-0</u> LARGE 140V-C-0	



9161 - MAP SYMBOL
LETTERING STANDARDS

ONE (1) INCH SCALE ONE-COLOR SERIES MAP

FEATURES	LEROY GUIDES	INSTRUCTIONS
TOWNSHIP AND RANGE NUMBERS	175V-C-2	
STANDARD MERIDIANS AND PARALLELS; AND BASE LINES (CADASTRAL SURVEY)	120V-C-0	
SECTION NUMBERS	80V-C-000	
STATE, FEDERAL AND BLM ROUTE NUMBERS	MONSEN NO. 204J6L	
FOREST OR RANGE TYPES	NOT APPLICABLE	
PRECISE ALTIMETER ELEVATIONS AND SPOT ELEVATIONS	NOT APPLICABLE	
STATUS SYMBOL	60V-C-000	




















2"

SCALE
SPECIFICATIONS



DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

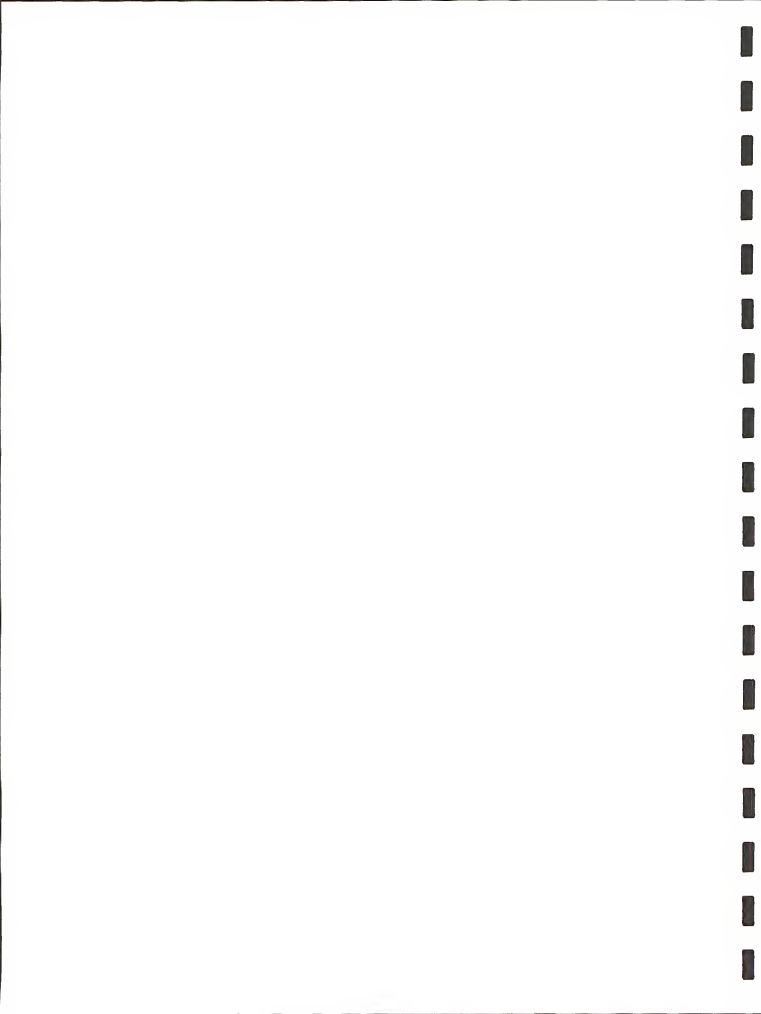
BLACK PLATE			BOUNDARIES			SCALE 2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLET NO.	INSTRUCTIONS
1	DISTRICT		.025"	SOLID LINE		STRADDLES BOUNDARY LINE--BREAK LINE FOR MAJOR FEATURES, E.G., FOUND SECTION CORNER, CONTROL STATION, ETC.
2	RESOURCE AREA AND O&C MASTER UNIT		.020"	DASH  SPACE	1.00" .10"	DITTO
3	PLANNING UNIT		.020"	DASH  SPACE	.75" .10"	DITTO
4	ALLOTMENT			DOT  SPACE	A2 .10"	DITTO
5	NATIONAL OR STATE		.017"	DASHES  SPACE	.75" & .20" .05"	DITTO
6	COUNTY		.015"	DASHES  SPACE	.75" & .20" .05"	DITTO
7	LAND GRANT		.015"	DASH  DOTS  SPACE	.75" A3 .05"	DITTO
8	MISCELLANEOUS (RCA, RESERVATIONS, ETC.)		.015"	DASH  DOT  SPACE	.75" A3 .05"	DITTO



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			BOUNDARIES			SCALE 2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLET NO.	INSTRUCTIONS
9	PARK (STATE, COUNTY OR LOCAL)	_____	.015"	DASH _____ SPACE	.50" .05"	STRADDLES BOUNDARY LINE--BREAK LINE FOR MAJOR FEATURES, E.G., FOUND SECTION CORNER, CONTROL STATION, ETC.
10	TOWNSHIP AND RANGE	<u>SURVEYED</u> <u>PROTRACTED</u>	.012"	SOLID LINE DASH _____ SPACE	.40" .05"	DASHES TO BE SCRIBED SO THAT CORNER INTERSECTIONS ARE EQUAL IN LENGTH.
11	SECTION	<u>SURVEYED</u> <u>PROTRACTED</u>	.008"	SOLID LINE DASH _____ SPACE	.40" .05"	DITTO
12	SECTION STATUS SUBDIVISION	_____	.004"	SOLID LINE		
13	MINERAL SURVEYS & DLC'S	_____	.004"	SOLID LINE		EXTERIOR BDY. OF SOLID BLOCKS OR CLUSTERS. ONLY SHOW THOSE REQUIRED TO DEFINE BLM OWNERSHIP.
14	CONTINENTAL DIVIDE	_____	.015"	DASH _____ SPACE	.85" .10"	



9161 MAP SYMBOLS

















DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			MARKERS AND MONUMENTS			SCALE 2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
15	SECTION CORNER-- EXISTENT (FOUND, PHOTO ID POSITIVE)				A32	
16	SECTION CORNER-- EXISTENT (FOUND, PHOTO ID NOT POSITIVE)		.008 "		A32	
17	SECTION CORNER-- RECOGNIZED (FOUND, PHOTO ID POSITIVE)				A32	ROTATE TEMPLAT TO REQUIRED POSITION
18	SECTION CORNER-- RECOGNIZED (FOUND, PHOTO ID NOT POSITIVE)		.008 "		A32	DITTO
19	SECTION CORNER SEARCHED FOR-- NOT FOUND		.008 "		A30	
20	ROUTE MARKER-- INTERSTATE		.005 "		"A" TEMPLAT	PLACE NEXT TO HIGHWAY ORIENTED IN NORTH AND SOUTH POSITION.
21	ROUTE MARKER--U.S.		.005 "		"A" TEMPLAT	DITTO
22	ROUTE MARKER--STATE		.005 "		"A" TEMPLAT	DITTO



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			MARKERS AND MONUMENTS			SCALE 2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLET NO.	INSTRUCTIONS
23	BLM ROAD SYSTEM MARKER		.005"		B34 B9	PLACE NEXT TO HIGHWAY ORIENTED IN NORTH AND SOUTH POSITION
24	TRIANGULATION STATION		.010"	TRIANGLE  DOT 	B19	PLACE DOT IN CENTER
25	BENCH MARK	BM 	.010"	CROSSBAR 	B14	ROTATE TEMPLET TO REQUIRED POSITION
26	PRECISE ALTIMETER ELEVATION	+ 134	.010"	CROSS 	B15	INCLUDE IF APPLICABLE
27	SPOT ELEVATION (UNCHECKED)	x 134	.010"	CROSSBAR 	B15	DITTO
28	REFERENCE POINT INDEPENDENT SURVEY-- HORIZONTAL OR VERTICAL		.010"	SQUARE  DOT 	B15	PLACE DOT IN CENTER
29	U.S. MINERAL OR LOCATION MONUMENT				B19	
30	BOUNDARY MONUMENT		.010"	SQUARE  DOT 	B15	PLACE DOT IN CENTER






9161 MAP SYMBOLS

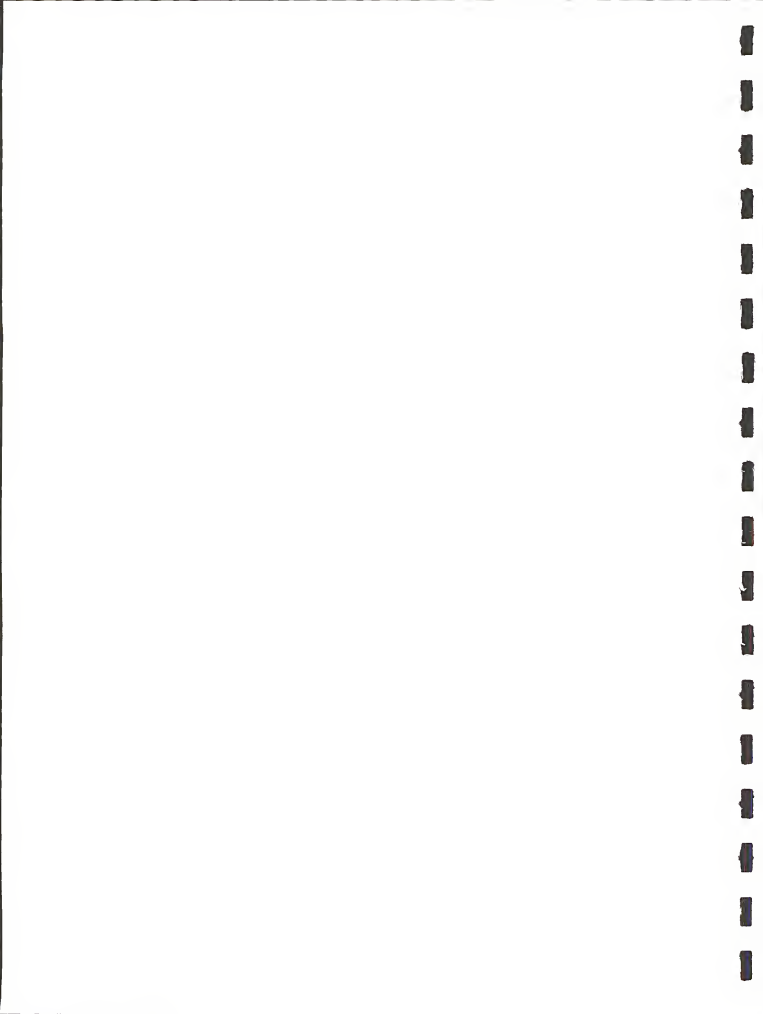
DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE

MARKERS AND MONUMENTS










SCALE 2 INCH

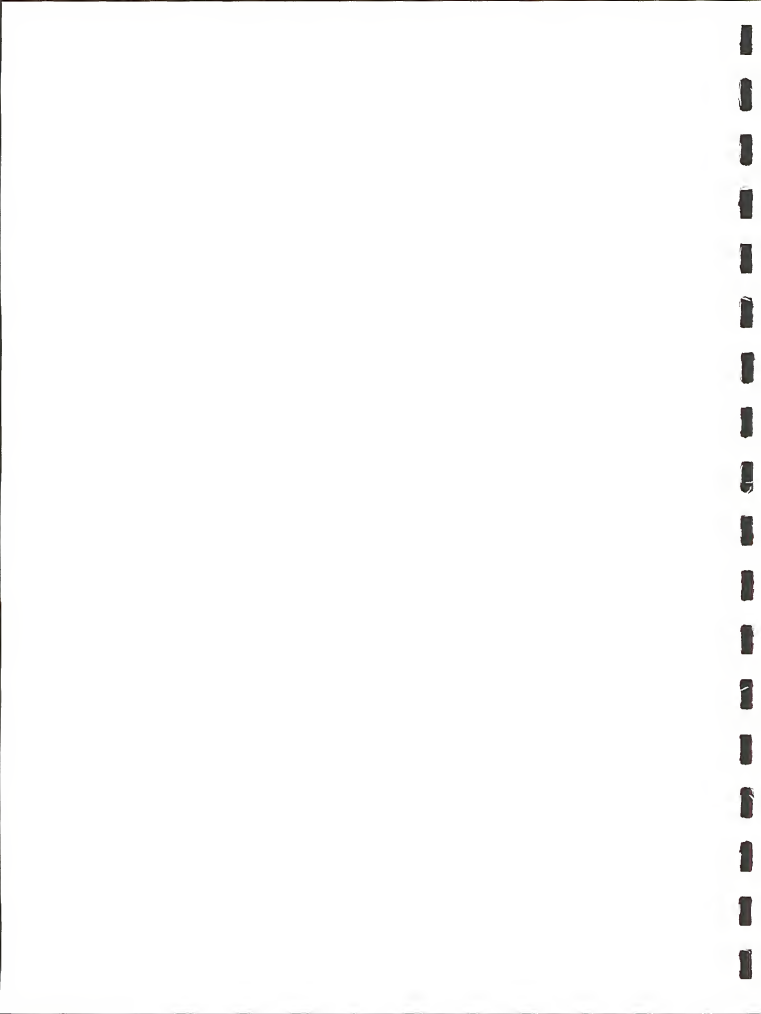
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLET NO.	INSTRUCTIONS
31	SECTION IDENTIFICATION	6				PLACE IN CENTER OF SECTION-NUMBER ALL SECTIONS
32	AERIAL PHOTO CENTER (POSITION & I.D.)	● 1 - 3			B2	SHOW ONLY THAT PHOTOGRAPHY USED IN ORIGINAL MAPPING OR EXTENSIVE AUXILIARY MAPPING.
33	TOWNS AND CITIES					SHOW MAIN STREET SYSTEM AND MAJOR GOV'T BUILDINGS. ALSO CITY LIMIT BDY. (MISC. BOUNDARY).
34	BLM OFFICE		.010"	BLDG. BASE POLE FLAG	 B14 B22 B14 B15	



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			WORKS AND STRUCTURES			SCALE 2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
35	ALL WEATHER ROAD		.006"	O/A WIDTH	.035"	O/A DESIGNATES OVERALL WIDTH
	DIVIDED HWY.		*	O/A WIDTH	.063"	*.006" WIDTH ON EXTERIOR LINE .005" WIDTH ON INTERIOR LINE
36	SEASONAL USE ROAD		.006"	O/A WIDTH DASH = SPACE	.035" .10" .025"	
37	PRIMITIVE ROAD		.006"	O/A WIDTH DASH = SPACE INSERT =	.035" .10" .025" .035"	PLACE INSERTS WITHIN ALTERNATE DASHES
38	RAILROAD SINGLE TRACK		.008"	TIES: LENGTH □ SPACE	A21 .30"	USE LONG SIDE OF A21
39	RAILROAD DOUBLE TRACK		.006"	O/A WIDTH TIES: LENGTH □ SPACE	.035" A19 .30"	USE LONG SIDE OF A19
40	RAILROAD ABANDONED		.008"	DASH — CROSSTIES □ SPACE	.20" A21 .05"	USE LONG SIDE OF A21
41	TRAIL		.008"	DASH — SPACE	.10" .025"	
42	LIVESTOCK ROUTE (ESTABLISHED)		.008"	DASH — INSERT □ SPACE	A10 .10" .10"	PLACE IN CENTER OF SPACE



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			WORKS AND STRUCTURES			SCALE 2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
43	ROAD BRIDGE		.006"	TICKS	A14	SHOW BRIDGES ACTUAL SIZE EXCEPT THOSE LESS THAN .10" IN LENGTH
44	RAILROAD BRIDGE		.008"	TICKS	A14	DITTO
45	FOOT BRIDGE		.008"	TICKS	A14	DITTO
46	FERRY				A33	
47	ROAD FORD		.006"	DASH = SPACE	.10" .025"	
48	TRAIL FORD		.008"	DASH - SPACE	.10" .025"	
49	ROAD TUNNEL		.006"	O/A WIDTH TICKS DASH = SPACE	.035" A14 .10" .025"	SHOW TUNNELS ACTUAL SIZE EXCEPT THOSE LESS THAN .10" IN LENGTH
50	RAILROAD TUNNEL		.008"	O/A WIDTH TICKS DASH = SPACE	.035" A14 .10" .025"	DITTO



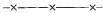







9161 MAP SYMBOLS

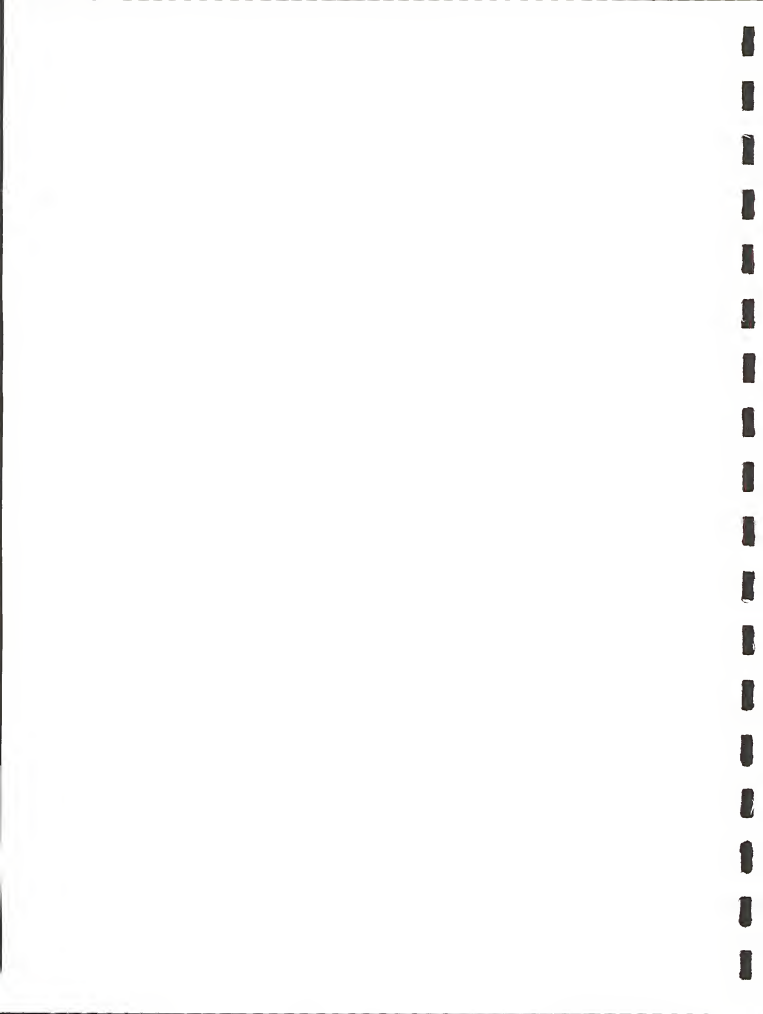
DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE

WORKS AND STRUCTURES




























SCALE 2 INCH

ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
51	FENCE (PROPOSED)					A DISTRICT SUPPLEMENT--NOT PART OF PRINTED MAP
52	FENCE		.008 "	TICKS SPACE	A14 .40 "	SHOW ONLY THOSE OBTAINED FROM FIELD (DISTRICT) EDIT
53	ROAD FENCED-- ONE SIDE		.008 "	TICKS SPACE	A14 .40 "	DITTO
54	ROAD FENCED-- BOTH SIDES		.008 "	TICKS SPACE	A14 .40 "	DITTO
55	RAILROAD FENCED-- ONE SIDE		.008 "	TICKS SPACE	A14 BETWEEN TIES	DITTO
56	RAILROAD FENCED-- BOTH SIDES		.008 "	TICKS SPACE	A14 BETWEEN TIES	DITTO
57	CATTLEGUARD		.008 "	O/A WIDTH LENGTH TICKS	A10 A10 A14	
58	RECREATION SITE		.008 "	LARGE SMALL BASE	B19 A24 A10	



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			WORKS AND STRUCTURES			SCALE 2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
59	TANKS (LABEL AS TO TYPE)		.008"	SMALL LARGE CROSSHATCH	   A1, 2, OR 3 A13 OR 30 3 OR 4/45°	
60	FIRE L. O. (PRIMARY) & TRIANGULATION STA.	 	.008"	CIRCLE TRIANGLE DOT	  • B4 B19 A4	
61	FIRE L. O. (SECONDARY) & TRIANGULATION STA.	 	.008"	LARGE TRIANGLE SMALL CROSS	    B4 B19 B1 B16	ROTATE TEMPLAT TO MAKE CROSS IN CENTER-SCRIBE LARGE CIRCLE FIRST.
62	FIRE TOOL CACHE		.008"	BOX TOP	  A32 A32	ROTATE TEMPLAT TO REQUIRED POSITION.
63	BUILDINGS				USE APPRO- PRIATE TEM- PLET SIZE	DEPICT ONLY THOSE BUILDINGS WHICH ADD VALUE OR UTILITY TO THE MAP, E.G., INDICATE SMALL SETTLEMENTS, POST OFFICES, SHELTER IN REMOTE AREAS, & SIMILAR CATAGORIES.
64	BUILDINGS (ABANDONED)		.008"		DITTO	
65	SCHOOL		.008"	BLDG. POLE FLAG	   A16 A19 A8	ROTATE TEMPLAT TO REQUIRED POSITION
66	CHURCH		.008"	BLDG. POLE CROSS	   A16 A21 A14	ROTATE TEMPLAT TO REQUIRED POSITION



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE

WORKS AND STRUCTURES























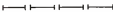







SCALE 2 INCH

ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
67	SAWMILL		.008"	BLDG. BASE	A30 A10	1/2 CIRCLE
68	SHELTER		.008"	TOP SIDES BASE	B20 A19 & A21 B20	
69	BLM RADIO INSTALLATION		.008"	BLDG. ANTENNA	A16 A14	1. 2. 3.
70	AIRFIELD			GUIDES	B20 ST. HWY. SYM.	1. (PENCIL) 3. DO NOT SHOW RUNWAYS 2.
71	AIRWAY BEACON			GUIDES	B4 A3	1. (PENCIL) 3. 2. 4.
72	OIL OR GAS WELLS		.008"	CIRCLE CONE	A13 A28	DEPICT ONLY THOSE WHICH ADD TO THE VALUE OR UTILITY OF THE MAP.
73	CEMETERY		.008"	BOUNDARY CROSS	A34 A32 & A16	ROTATE TEMPLAT TO REQUIRED POSITION
				BOUNDARY	ACTUAL SIZE	USE SHORT DASH FOR OUTLINE
74	MINE OR QUARRY		.008"	HANDLES HEADS	B14 B1	



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			WORKS AND STRUCTURES			SCALE 2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLET NO.	INSTRUCTIONS
75	CORRAL		.008"	CIRCLE  GATE 	A30 A32	ROTATE TEMPLET TO REQUIRED POSITION
76	RUINS (LABEL)	 SMALL	.008"	BOUNDARY 	A14	USE SOLID OUTLINE
		 LARGE		BOUNDARY 	ACTUAL SIZE	USE SHORT DASH FOR OUTLINE
77	CLIFF DWELLING		.008"	TOP  BASE 	A26 A10	
78	GAGING STATION		.008"	CIRCLE 	A30	1.  2.  3. 
79	TELEPHONE OR TELEGRAPH LINE		.008"	POLE  SPACING 	A2 .50"	SHOW ONLY WHEN NEEDED FOR ORIENTATION
80	POWER TRANS. LINE		.008"	POLE  DASH  SPACE 	A2 A19 .05"	POLES SPACED EVERY 4 DASHES
81	PIPE LINE		.010"	DASH  ENDS  SPACE 	.25" A16 .05"	
82	ROAD GATE		.010"	BAR  ENDS: WEIGHT  LENGTH 	.15" .015" .05"	



















9161 MAP SYMBOLS

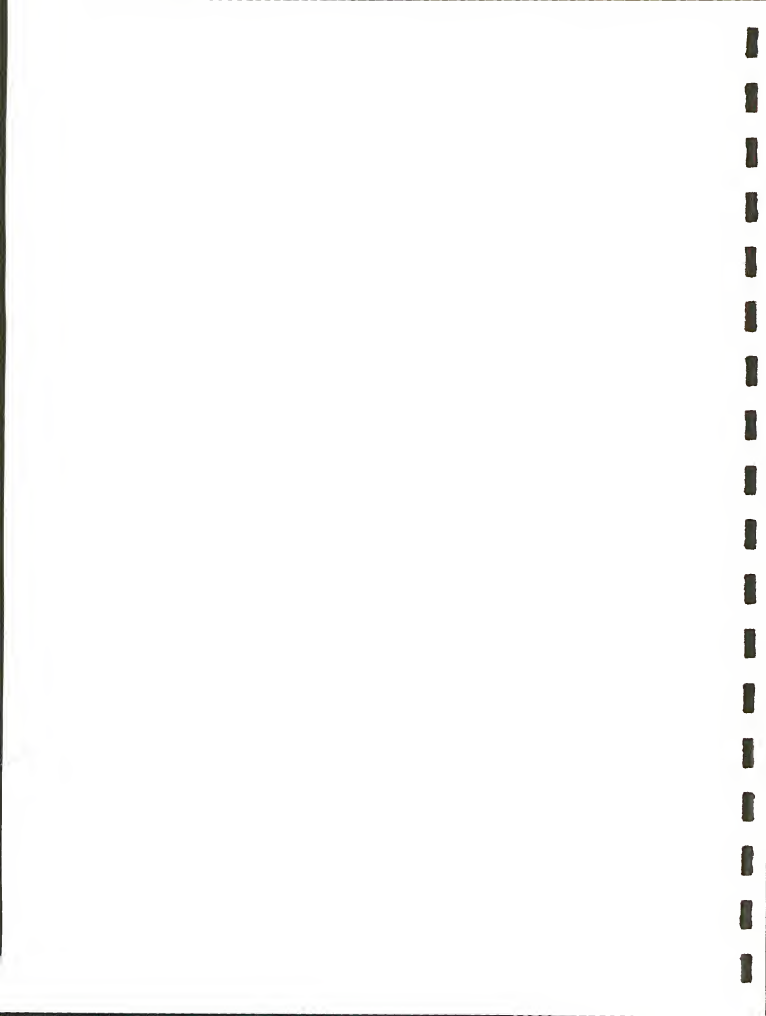
DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE

WORKS AND STRUCTURES

SCALE 2 INCH

ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLET NO.	INSTRUCTIONS
63	WINDMILL		.008"	CIRCLE  CROSSBAR 	B2 B22	
64	RESERVOIR OR RETENTION DAM			BODY: LENGTH WIDTH WINGS 	.15" .05" A27	MINIMUM SIZE GIVEN--SHOW ACTUAL SIZE IF LARGER
65	DETENTION DAM			BODY: LENGTH WIDTH	.15" .05"	DITTO
66	CHECK DAM			BODY: LENGTH WIDTH WINGS 	.20" .05" .05"	DITTO
67	DIVERSION DAM			BODY: LENGTH WIDTH	.15" .05"	DITTO
68	LARGE DAM			BODY: LENGTH WIDTH	.20" .05"	DITTO
69	EARTH TANK OR CHARCO		.010"	ENDS  SIDES 	B2 B15	
90	LOCATED OBJECT		.005"	CIRCLE  DOT 	B3 B1	NAME OBJECT



9161 MAP SYMBOLS

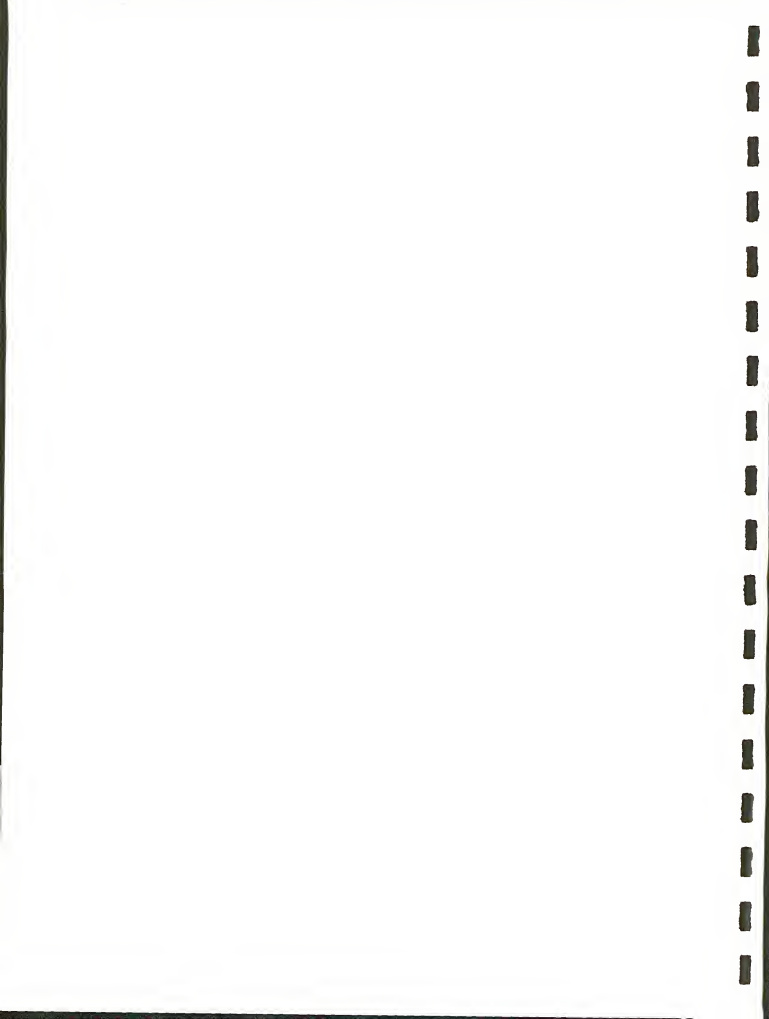
DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE

DRAINAGE AND WATER FEATURES
















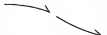










SCALE 2 INCH

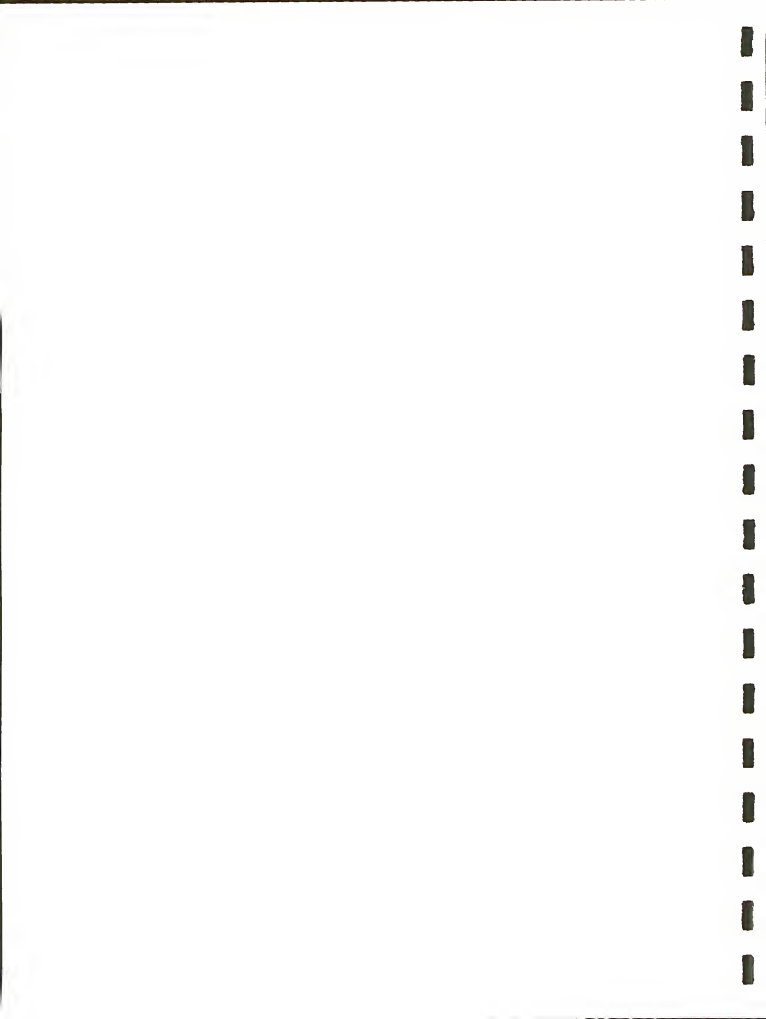
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
91	RIVER OR LARGE STREAM			SHORELINE WATERLINE	.012" .005"	
92	PERENNIAL STREAM		.010" TO .014"	SOLID LINE		.010" IS MINIMUM WIDTH--VARY TO MAXIMUM OF .014" AS REQUIRED BY STREAM SIZES
93	INTERMITTENT STREAM OR WASH		.010"	DASH DOTS (SPACE)	.40" .20"	
94	LAKE OR POND			SHORELINE WATERLINE	.012" .005"	
95	INTERMITTENT LAKE OR POND		.012"	DASH SPACE INTERIOR	.15" .05" ZIP # 453	
96	DRY LAKE OR POND		.012"	DASH SPACE INTERIOR	.15" .05" ZIP #19	1. OUTLINE AREA ON SCRIBE BASE 2. APPLY ZIP TO INTERIOR ON NAME PLATE
97	MARSH			STIK-UP	ZIP #602	PLACE STIK-UP ON NAME PLATE
98	SPRING		.010"	CIRCLE BAR ARROW	A13 A34 A27	



9161 MAP SYMBOLS






DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

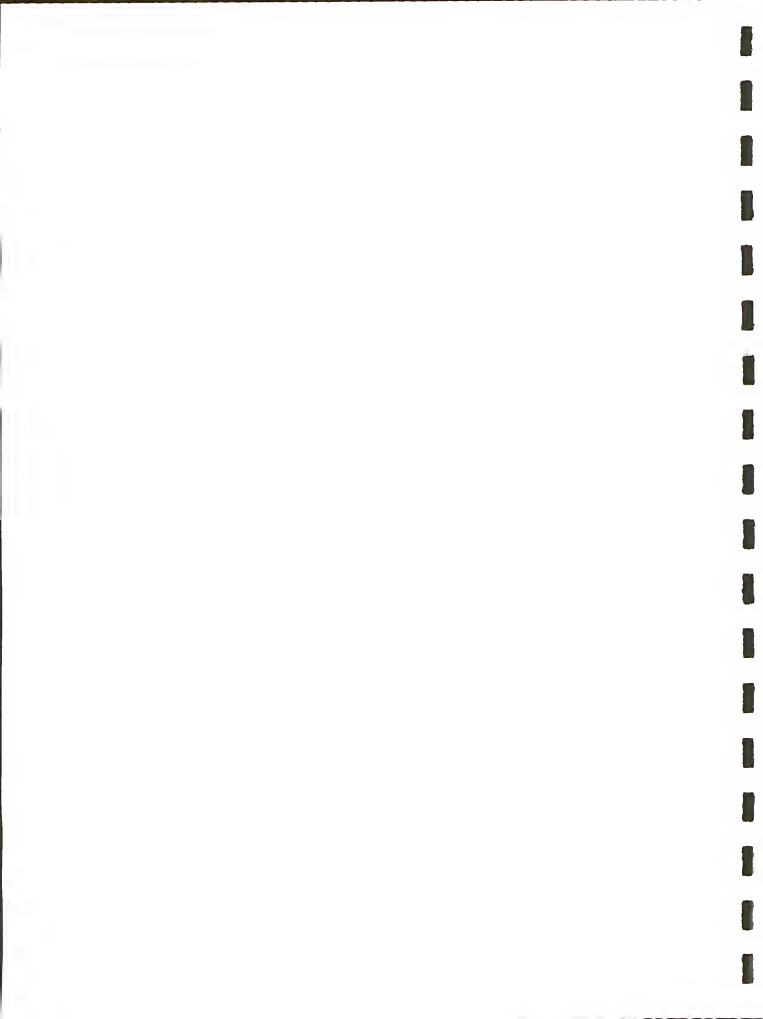
BLACK PLATE			DRAINAGE AND WATER FEATURES			SCALE 2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
99	SPRING IMPROVED		.010"	CIRCLE BODY WINGS BAR ARROW    	A13 A26 A14 A26 A27	ROTATE TEMPLETS TO REQUIRED POSITIONS
100	ARTESIAN WELL		.010"	CIRCLE WINGS  	A13 A33	
101	WELL		.010"	CIRCLE 	A13	
102	AQUEDUCT TUNNEL		.010"	O/A WIDTH TICKS DASH SPACE    	.035" A14 .10" .025"	
103	DITCH OR CANAL		.010"	DASH ARROW SPACE  	.50" A28 .075"	DEPICT ONLY THOSE WHICH ADD TO THE VALUE OR UTILITY OF THE MAP.
104	FLUME OR AQUEDUCT		.010"	ARROW SPACING 	A28 .50"	DITTO
105	GUZZLER		.010"	SIDES CIRCLE  	A28 A30	DITTO
106	LEVEE OR DIKE		.006"	LINE HACHURES  	VARIABLE A15	DITTO USE SIDES OF SQUARE



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

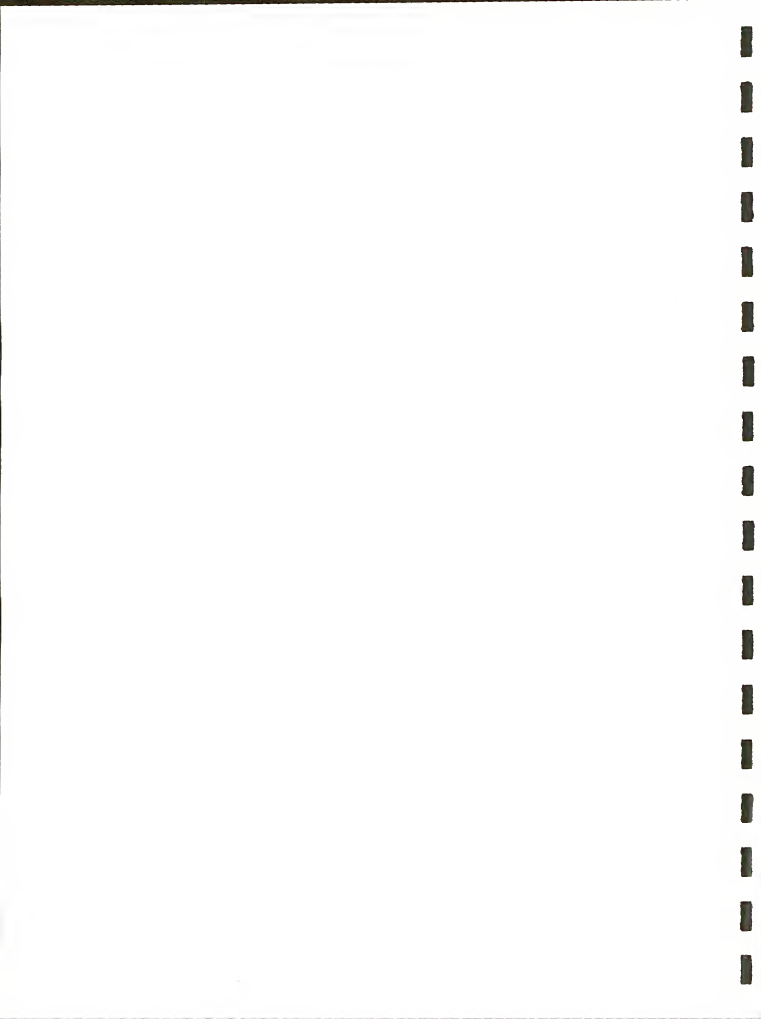
BLACK PLATE			RELIEF FEATURES			SCALE 2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLET NO.	INSTRUCTIONS
107	BLUFFS, CLIFFS, RIMS		.006"	VEE ∨	A29	DEPICT ONLY THOSE WHICH ADD TO THE VALUE OR UTILITY OF THE MAP.
108	PROMINENT RIDGE TOP			HACHURES	VARY .003" TO .005"	DITTO
109	PROMINENT PEAK			HACHURES	VARY .003" TO .005"	DITTO
110	SAND			STIK-UP	ZIP #304	DITTO APPLY ON NAME PLATE
111	LAVA			STIK-UP	ZIP #669	DITTO



9161 MAP SYMBOLS

DRAFTING & SCRIBING SPECIFICATIONS & INSTRUCTIONS

BLACK PLATE			FOREST OR RANGE TYPE LINES			SCALE 2 INCH
ITEM	FEATURE	SYMBOL	LINE WEIGHT	SYMBOL ELEMENTS	DIMENSION OR TEMPLAT NO.	INSTRUCTIONS
112	TYPE LINE				1. LEROY PEN NO. 1 2. APPLY ON NAME PLATE



9161 - MAP SYMBOL
LETTERING STANDARDS

TWO (2) INCH SCALE ONE-COLOR SERIES MAP

FEATURES				LEROY GUIDES	INSTRUCTIONS
AERIAL PHOTO NO.	DAM (TYPE OR NAME)	LOOKOUT NAME	RUIN	80V-C-000	
AIRPORT	DOCK	MILL	SCHOOL		
AIRWAY BEACON	FENCE NAME	MINE	SHELTER		
BENCH MARK	FIRE TOOL CACHE	OIL OR GAS WELL	SKI AREA		
BOUNDARY MONUMENT	FISH HATCHERY	PIER	TANK (TYPE)		
BRIDGE	FOREST NURSERY	POWERHOUSE	TRI. STA. NAME		
CABIN	GAGING STATION	PRIVATE CAMP NAME	TUNNEL NAME		
CATTLE GUARD	GATE	QUARRY	U.S. MINERAL		
CEMETERY (LARGE)	HATCHERY	RADIO INSTALLATION	OR LOCATION		
CHURCH	HOUSE	RANCH	MONUMENT		
CLIFF DWELLING	LANDING FIELD	RECREATION SITE	WATER TANK		
CORRAL	LIGHTHOUSE	REFERENCE PT.	WELL (TYPE)		
	LODGE	RESORT	WINDMILL		
ARROYO	CAPE	GAP	LEDGE	SMALL	THE LARGE AND VERY LARGE LETTERING CLASSIFICATIONS SHOULD BE USED TO DESIGNATE ONLY THOSE DIVIDES, MOUNTAINS, RIDGES, VALLEYS, AND MOUNTAIN RANGES WHICH ENCOMPASS LARGE AREAS. * * * CONTINENTAL DIVIDE USE 290V-C-2
BAR	CAVE	GORGE	MEADOW MDW.	80V-CL-000	
BASIN	CLIFF	GULCH	MESA	OR	
BEACH	COULEE	HEAD	MOUNTAIN RANGE	100V-CL-000	
BENCH	CRAIG	HILL	MOUNTAIN MTN.	MEDIUM	
BEND	CRATER	HOLLOW	PASS	100V-CL-00	
BLUFF	CREST	ISLAND	PEAK PK.	OR	
BOTTOM	DIVIDE	KNOB	PENINSULA	120V-CL-0	
BUTTE	DRAW	KNOLL	PLAIN	LARGE	
CANYON	FLAT	LAVA BED	PLATEAU	140V-C-1.0R	
			POINT PT.	175V-C-2	
				VERY LARGE	
				200V-C-2 TO	
				290V-C-2	



9161 - MAP SYMBOL
LETTERING STANDARDS

TWO (2) INCH SCALE ONE-COLOR SERIES MAP

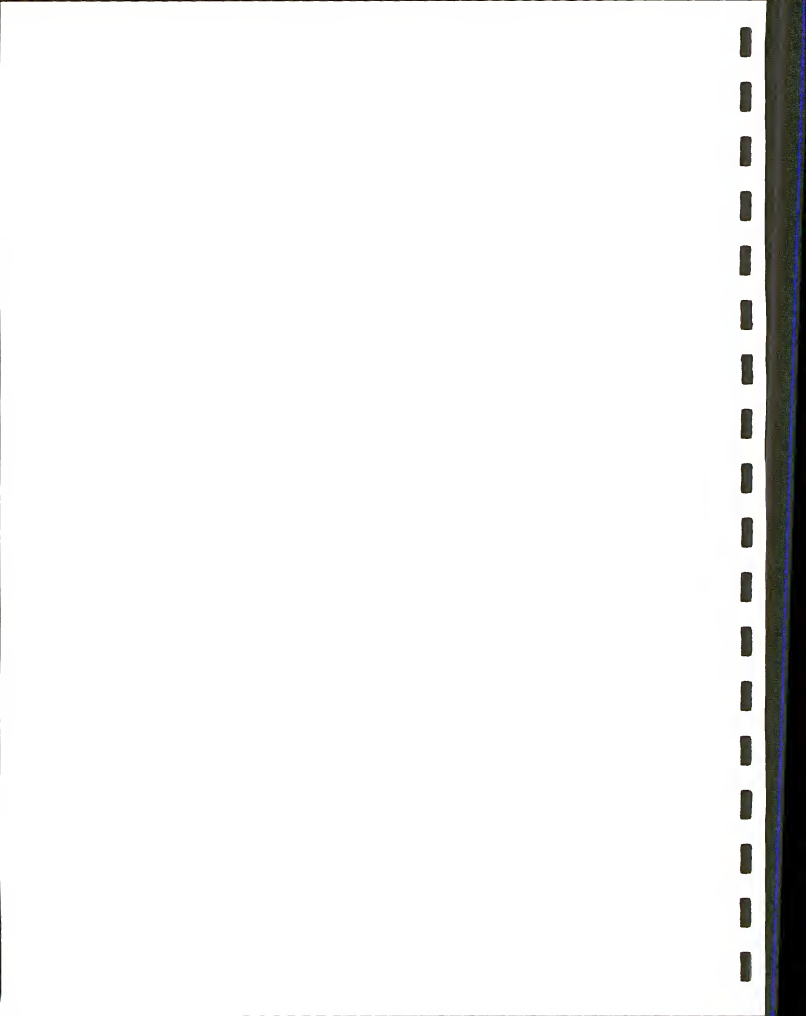
FEATURES					LEROY GUIDES	INSTRUCTIONS
BAY	FALL	LAKE LK.	RIFFLE	SPRING SPR.	SMALL	
BRANCH	GEYSER	LICK	RUN	WALLOW	80S-CL-000	
BROOK	GLACIER	MARSH OR SWAMP	SEEP	WASH	LARGE	
COVE	INLET	POND	SINK	WATER HOLE	100S-CL-00 OR	
CREEK CR.	LAGOON	RAPID	SLOUGH		120S-CL-0	
LARGE CREEK AND SMALL RIVER					120S-C-0	
GULF	LARGE LAKE	LARGE RIVER			140S-C-1	
OCEAN	STRAIT	SOUND			200S-C-1 TO 290S-C-2	VARY AS REQUIRED BY AREA SIZE.
AQUEDUCT	FERRY	LEVEE	ROAD NAME	TRAIL NAME	100S-C-00	
AQUEDUCT TUNNEL	FORD	PIPELINE	RESERVOIR	LIVESTOCK		
CANAL	FLUME	POWERLINE	TELEPHONE OR	ROUTE		
DITCH	HIWAY NAME	RAILROAD	TELEGRAPH LINE			
DISTRICT BOUNDARY					3241K-V-24PC NO. 1-(FILL)	PLACE NAME EITHER ON BOUNDARY LINE OR WITHIN AREA-WHICHEVER IS THE BEST SOLUTION FOR IDENTIFICATION AND CLARITY.
RESOURCE AREA AND O&C MASTER UNIT BOUNDARY					3242C-V-18PC NO. 00-(OPEN)	



9161 - MAP SYMBOL
LETTERING STANDARDS

TWO (2) INCH ONE-COLOR SERIES MAP

FEATURES	LEROY GUIDES	INSTRUCTIONS
PLANNING UNIT BOUNDARY	3242C-V-18PL NO. 00-(OPEN)	PLACE NAME EITHER ON BOUNDARY LINE OR WITHIN AREA - WHICHEVER IS THE BEST SOLUTION FOR IDENTIFICATION AND CLARITY.
ALLOTMENT BOUNDARY	175V-CL-1	
NATIONAL OR STATE BOUNDARY	175V-C-1	
COUNTY BOUNDARY	140V-C-0	
LAND GRANT BOUNDARY	120V-CL-0	
MISC. (INDIAN RESERVATIONS, NATIONAL MONUMENT, NATIONAL FOREST, RCA, OTHERS) BOUNDARY	120V-C-0	
PARK BOUNDARY (COUNTY, STATE, OR FEDERAL)	SMALL <u>100V-C-00</u> MEDIUM <u>120V-C-0</u> LARGE 140V-CL-1	
TOWN NAMES	SMALL <u>100V-CL-00</u> MEDIUM <u>120V-CL-0</u> LARGE 140V-C-1 OR 175V-C-1	



9161 - MAP SYMBOL
LETTERING STANDARDS

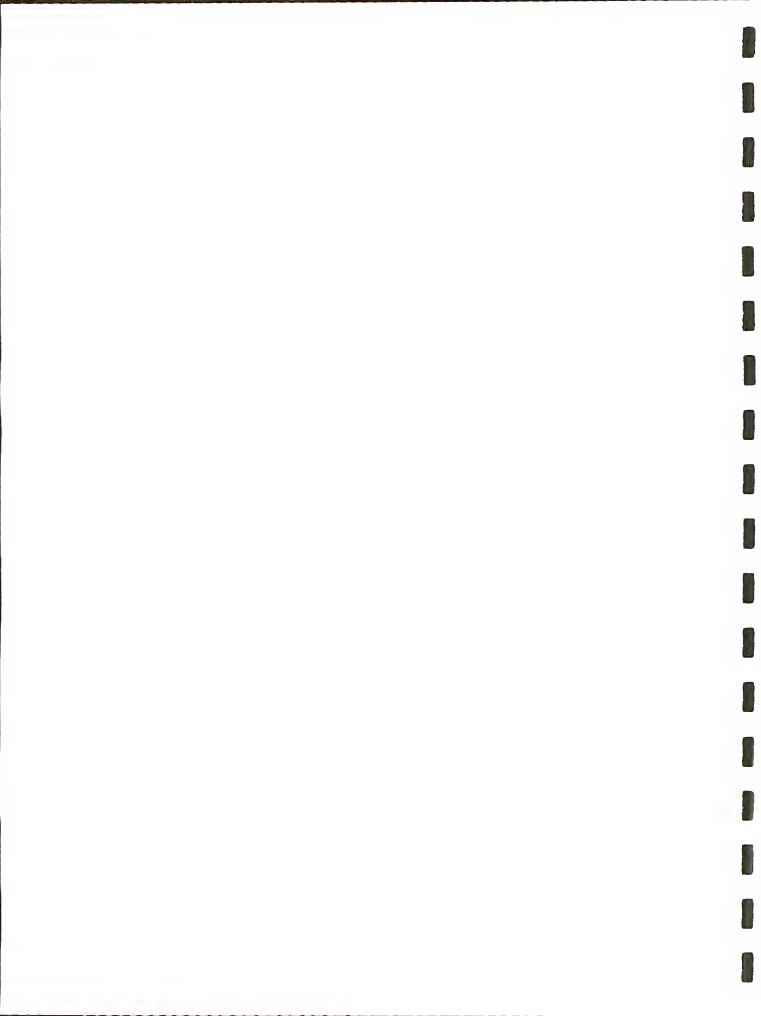
TWO (2) INCH SCALE ONE-COLOR SERIES MAP

FEATURES	LEROY GUIDES	INSTRUCTIONS
TOWNSHIP AND RANGE NUMBERS	NOT APPLICABLE	
STANDARD MERIDIANS AND PARALLELS; AND BASE LINES (CADASTRAL SURVEY)	120V-C-0	
SECTION NUMBERS	100V-C-00	
STATE, FEDERAL AND BLM ROUTE NUMBERS	MONSEN NO. 204J6L	
FOREST OR RANGE TYPES	80V-CL-000	
PRECISE ALTIMETER ELEVATIONS AND SPOT ELEVATIONS	80V-C-000	IF REQUIRED.
STATUS SYMBOL	80V-C-000	



**PART
III**

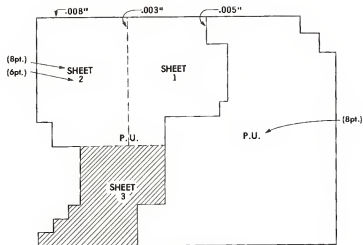
**MAP FORMAT DATA
AND ILLUSTRATIONS**



ILLUSTRATIONS

- No. 1 - Sample of title block, key map, reference data, and legend for Basic Series Maps at 1"=1 mile scale.*
- No. 2 - Sample of title block, key map, reference data, and legend for Basic Series Maps at $\frac{1}{2}$ "=1 mile scale.*
- No. 3.- Sample of typical placement of map identification and reference data on the $\frac{1}{2}$ " and 1"=1 mile scale Basic Series Maps. Placement of this data can be adjusted to fit the boundary shape of the individual Basic Series Map.*
- No. 4 - Sample of format and placement of map identification and reference data for Basic Series Maps at 2"=1 mile scale.*
- No. 5 - Sample of format showing method of designating, identifying, and placing range forage inventory data on Type Maps (see Illustration No. 4).*
- No. 6 - Sample of format and placement of map identification and reference data for Bureau's 16" x 21" Color Quadrangle Map of $\frac{1}{2}$ "=1 mile scale. Standard legend to be printed on reverse side.*
- No. 7 - Sample of method to determine Index Code Numbers for each State's 16" x 21" Color Quadrangle Maps (Illustration No. 6).*
- No. 8 - Sample legend to be used on the one - color $\frac{1}{2}$ "=1 mile scale Basic Series Maps and the 1"=1 mile scale Basic Series Maps.*
- No. 9 - Symbol Templets (Index Key)*
- No. 10 - Descriptive basic diagrams of the two map scribing processes.*



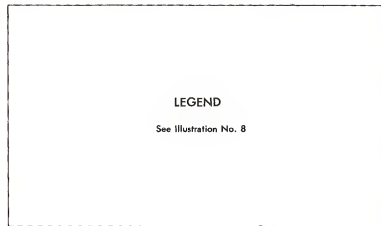


KEY MAP (10pt.)
(RESOURCE AREA) (9pt.)

BASE MAP COMPILED FROM ONE OR MORE
OF THESE SOURCES: RECENT MAPS PUBLISHED
BY THE U.S.G.S., U.S.F.S., STATE HIGHWAY
DEPARTMENT, B.L.M. RECORDS, LOCAL MAPPING
SOURCES AND AERIAL PHOTOGRAPHY. (10pt.)

(SAMPLE OF COMPILATION REFERENCE DATA)

FUTURA MEDIUM STYLE LETTERING
(JAGGARS-CHILES-STOVALL)



U.S. DEPARTMENT OF THE INTERIOR (12pt.)
BUREAU OF LAND MANAGEMENT

PLANNING UNIT (24pt.)

RESOURCE AREA (18pt.)

SHEET ____ OF ____ (If required) (14pt.)

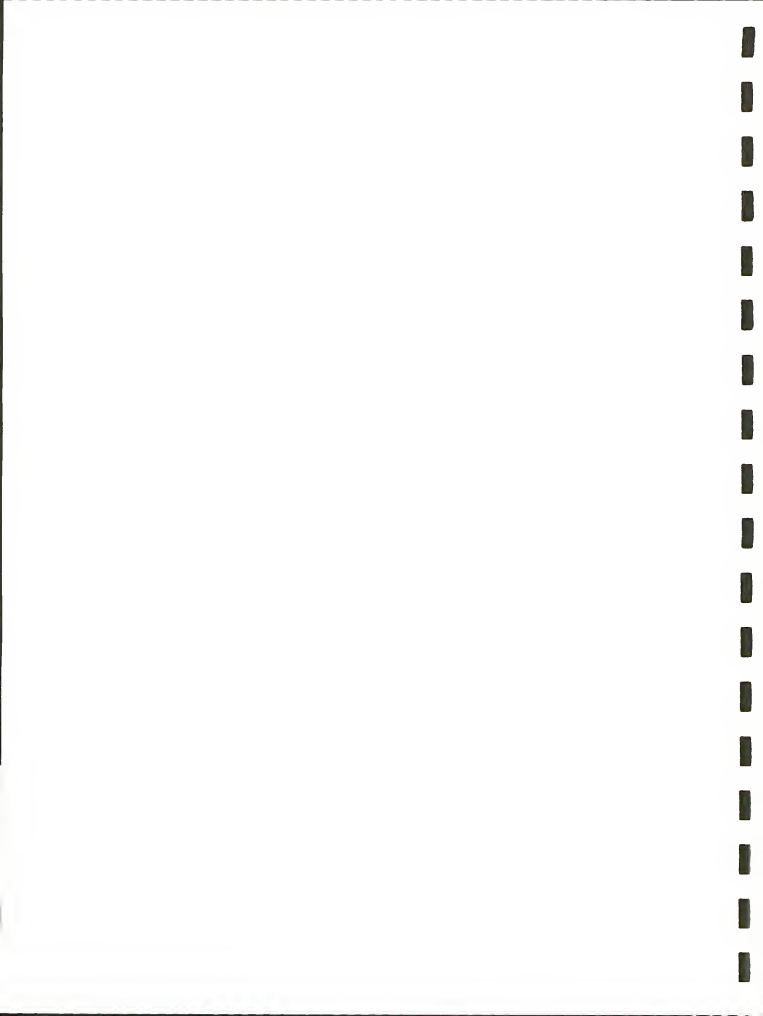
(STATE NAME) (12pt.)
1966

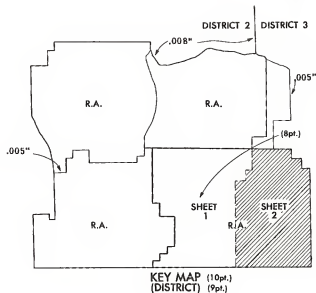
SCALE: 1" = 1 MILE (10pt.)
1 1/2 0 1 2 3Mi. (8pt.)
.003"

REVISIONS (9pt.)	
PLANIMETRY	_____
STATUS	_____

(8pt.)

Illustration No. 1

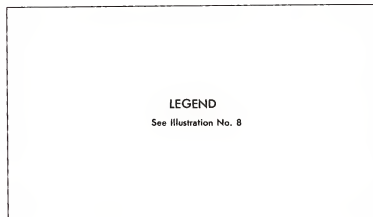




KEY MAP
(DISTRICT) (10pt.)
(9pt.)

BASE MAP COMPILED FROM ONE OR MORE
OF THESE SOURCES: RECENT MAPS PUBLISHED
BY THE U.S.G.S., U.S.F.S., STATE HIGHWAY
DEPARTMENT, B.L.M. RECORDS, LOCAL MAPPING
SOURCES AND AERIAL PHOTOGRAPHY. (10pt.)

(SAMPLE OF COMPILATION REFERENCE DATA)



U.S. DEPARTMENT OF THE INTERIOR (12pt.)
BUREAU OF LAND MANAGEMENT

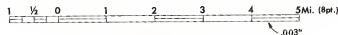
RESOURCE AREA (24pt.)

DISTRICT (18pt.)

SHEET ___ OF ___ (If required) (14pt.)

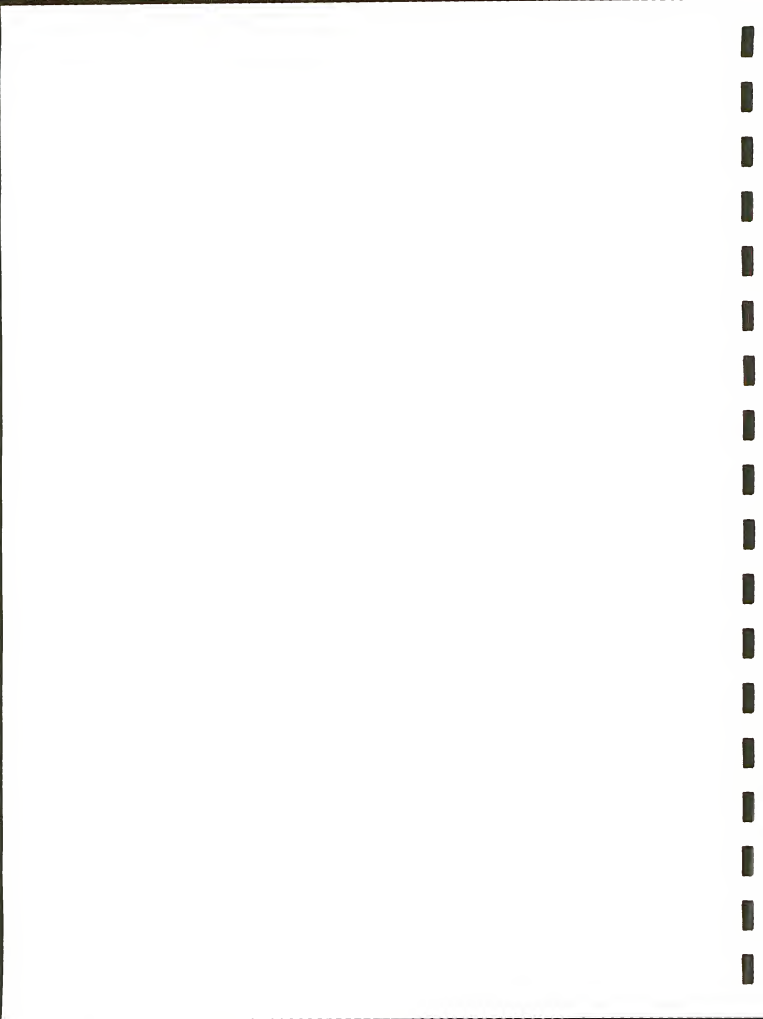
(STATE NAME)
1966 (12pt.)

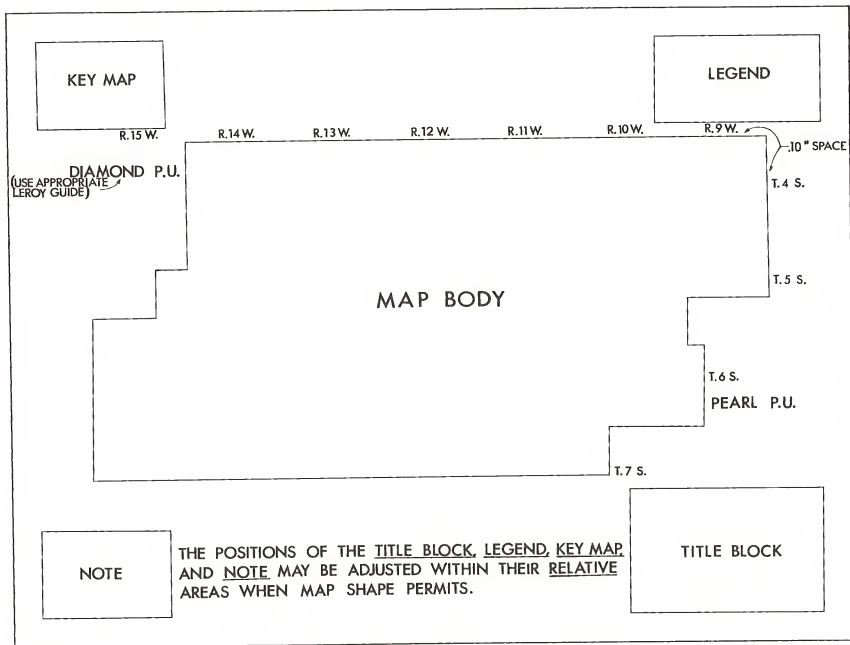
SCALE: 1/2" = 1 MILE (10pt.)



REVISIONS (9pt.)

(8pt.)
PLANIMETRY
STATUS







T. 40 S., R. 15 E. (140 V-0)

T. 40 S., R. 15 E. (350 V-3)
BUREAU OF LAND MANAGEMENT (175 V-1)
(RANGE OR FOREST TYPE MAP) (175 V-1)
OREGON (175 V-1)

UNIT
ALLOTMENTDISTRICT
DATE OF SURVEY (140 V-0)

BORDER LINE WEIGHT .010"

6	5	4	3	2	1 (100 V-0)
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

(100 V-00) { Photo Project Symbol CNO All Sections 640 acres except as noted
◆ Existent Corner
◆ Recognized Corner } Identified in the Field

Scale 2" = 1 Mile

(100 V-0)

REVISIONS (120 V-1)

PLANIMETRY
STATUS

T. 40 S., R. 15 E.

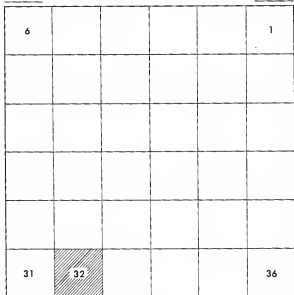
Illustration No. 4

9161—MAP SYMBOLS

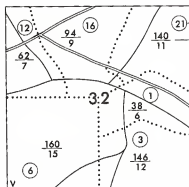


T. 40 S., R.15 E.

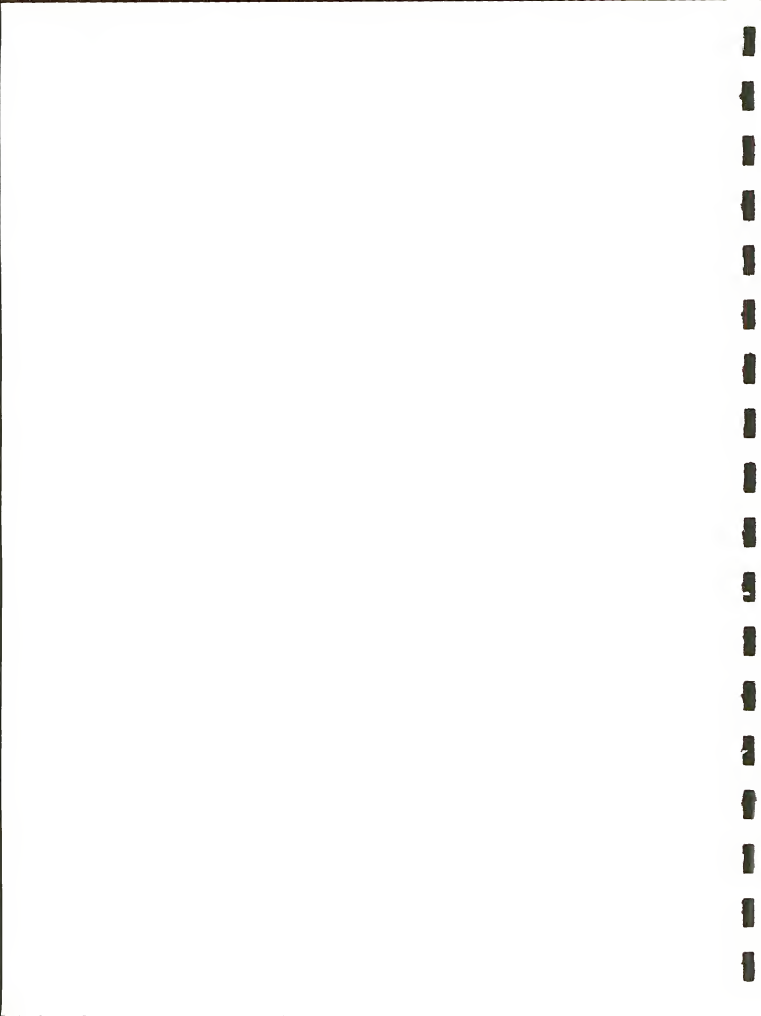
RANGE TYPE MAP



- | | |
|-----------------|--------------|
| ① 2W-GRA 0.7 | ⑮ 3D-GRA 5.1 |
| ② 2D-GRA 3.6 | ⑯ RP4- 16.8 |
| ③ 6Ppo/Shy 17.3 | ⑰ 2P-GRA 1.3 |



Type write-up number
Surface acres
AUM's



BUREAU OF LAND MANAGEMENT (420 A 18)

STATE (420 A 30)

(420 A 18) MANAGEMENT UNIT

R. 11 W.

R. 10 W.

R. 9 W.

R. 8 W.

R. 7 W.

.10" SPACE

T. 5 S.

T. 6 S.

T. 7 S.

T. 8 S.

T. 9 S.

9161-MAP SYMBOLS
16"

MAP BODY

16" x 21" COLOR QUADRANGLE MAPS

ALL LETTERING GUIDES ARE GIVEN IN MONSEN CODE NUMBER

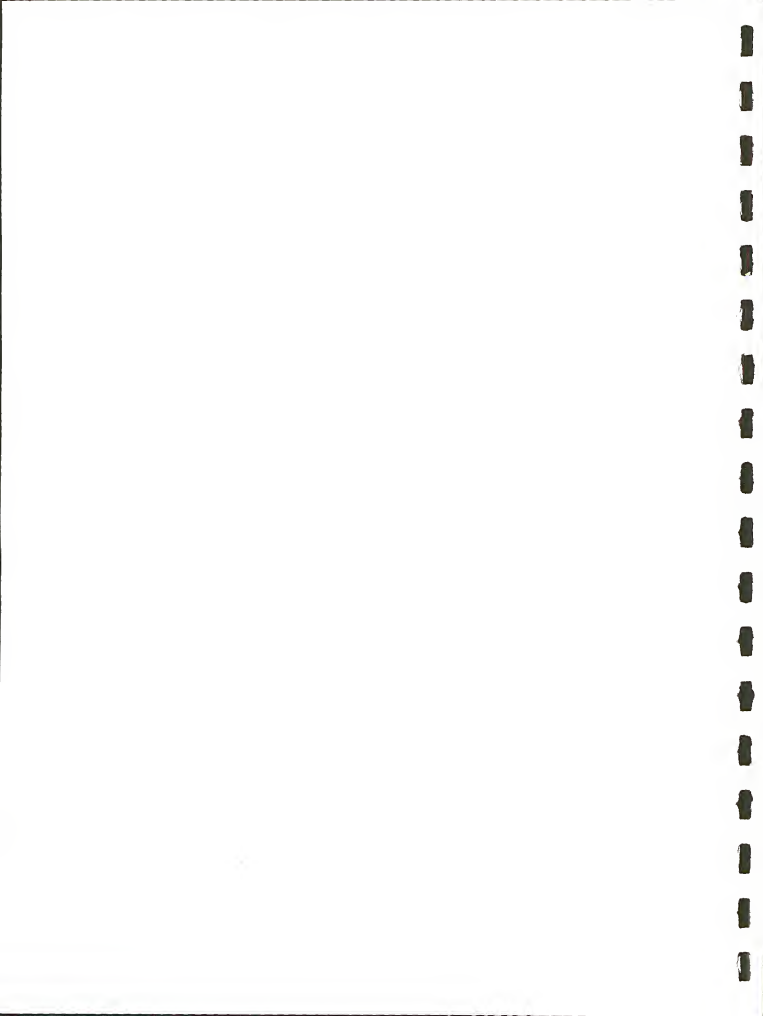
MAXIMUM MAP BODY
NOT A BORDER LINE

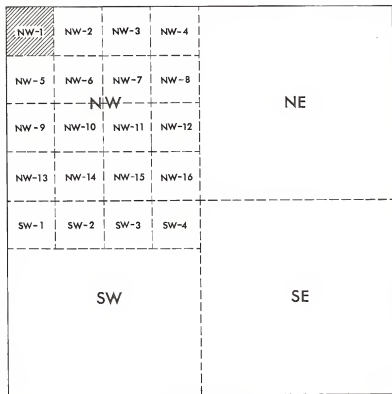
SCALE 1/2" = 1 MILE (420 A 14)

DATE (420 A 14)
(YEAR ONLY)

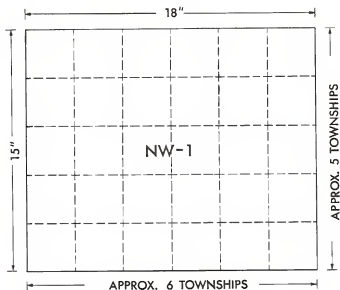
(420 A 14) INDEX CODE

Illustration No. 6



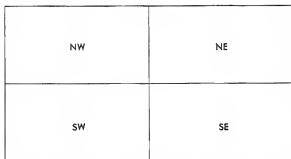


STATE



SAMPLE
INDEX CODE
 NW-1

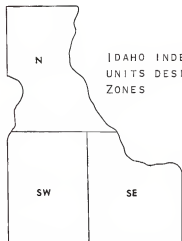




OREGON, MONTANA, NEVADA, WYOMING, COLORADO, NEW MEXICO, AND ARIZONA STATE INDEXES ARE DIVIDED INTO FOUR UNITS DESCRIBED AS THE NW, NE, SW, AND SE ZONES. WITH THE EXCEPTION OF NEVADA AND UTAH, THE UNITS WILL BE ALMOST EQUAL IN AREA.



CALIFORNIA INDEX IS DIVIDED INTO THREE UNITS DESIGNATED NORTH, CENTRAL, AND SOUTH ZONES.



IDAHO INDEX IS DIVIDED INTO THREE UNITS DESIGNATED NORTH, SW, AND SE ZONES

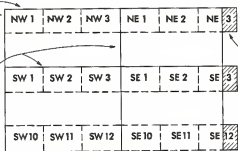


DUE TO THE VARIATIONS IN THE SIZE AND SHAPE OF MANY TOWNSHIPS AND BECAUSE TOTAL MAP CONTENT ON EACH QUADRANGLE CANNOT EXCEED THE OVER-ALL DIMENSIONS OF 15" X 18", IT WILL BE NECESSARY TO BREAK THE QUADRANGLE MAP AREAS ON SECTION LINES IN THOSE CASES WHERE DUE TO TOWNSHIP SIZE OR SHAPE PROBLEMS IT IS IMPOSSIBLE TO INCLUDE A FULL 5 BY 6 TOWNSHIP UNIT AND ADHERE TO THE 15" X 18" MAP SPACE LIMITATIONS. IN ALL CASES YOU SHOULD ALWAYS INCLUDE WITHIN THE ALLOWABLE 15" X 18" MAP AREA THE MAXIMUM MAP CONTENT POSSIBLE.

THE ILLUSTRATION BELOW DEPICTS IN DETAIL THE CORRECT WAY TO PREPARE A TYPICAL INDEX MAP:

ALL QUADS LYING ON STATE BOUNDARY LINES SHOULD INDICATE BY SHORT TICKS THE SECTIONS, TOWNSHIPS, AND/OR RANGE LINE TIES TO THE ADJOINING STATE QUADS.

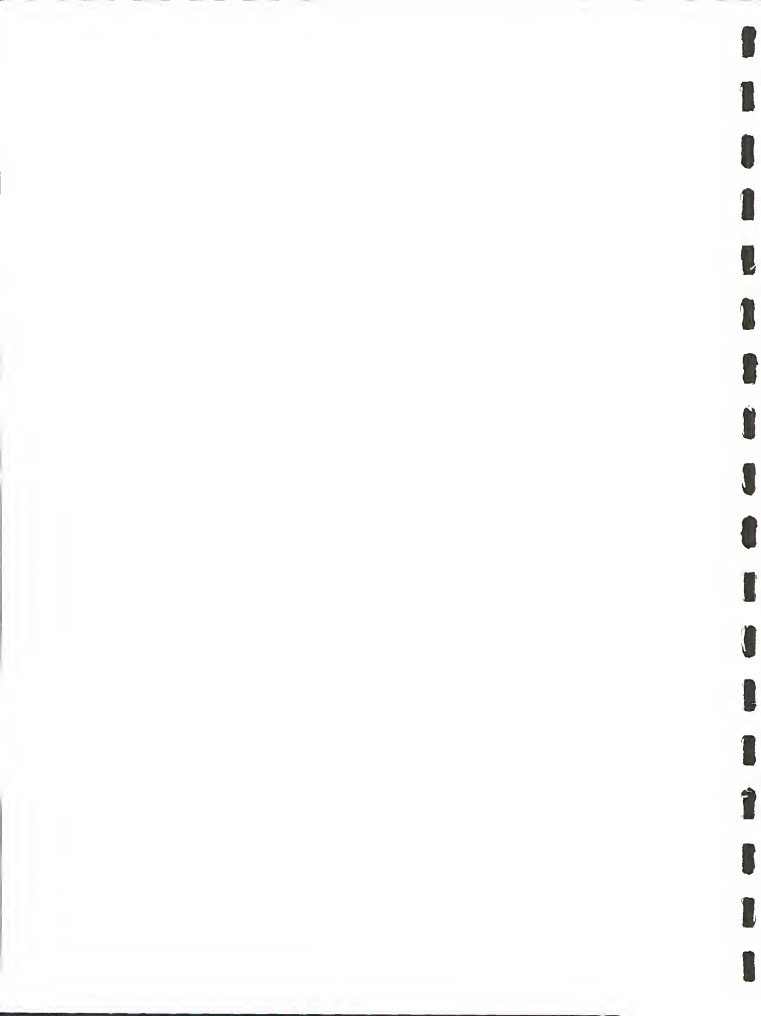
USE THE N. & W. BOUNDARIES OF THE STATE AS POINTS OF ORIGIN FOR THE NW 1 QUAD.












WHEN AS ILLUSTRATED QUADS FALLING ON THE E. & S. BOUNDARIES OF THE STATE WILL OVERLAP THE ADJOINING STATE OR STATES, THAT PORTION OVERLAPPED WILL BE MAPPED TO COMPLETE EACH QUAD'S 15" X 18" MAP CONTENT AREA.

POSITION THE N-S AND E-W SUBDIVISION LINES TO PERMIT FULL QUADS (NE 1, SW 1, AND SE 1) TO ORIGINATE AT THESE POINTS IN EACH ZONE. WITH CERTAIN EXCEPTIONS (E.G., ALONG THE CURVED CALIFORNIA COAST) ALL QUADS WILL BE FULL QUADS EXCEPT THOSE LYING ALONG THE EAST AND SOUTH BOUNDARIES.

THE PORTION OF THE QUAD LYING IN THE ADJOINING STATE CAN BE MAPPED ON A SKELETON BASIS, I.E., DEPICT ONLY THE LAND SURVEY NET, LAND STATUS, AND MAJOR ROADS AND DRAINAGES.



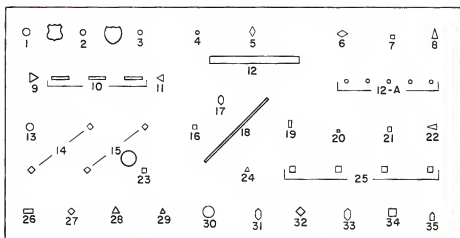
LEGEND (10pt.)

(Use applicable symbol)	PLANNING UNIT, RESOURCE AREA, or DISTRICT BOUNDARY (8pt.)
	ALL WEATHER ROAD
	SEASONAL ROAD
	PRIMITIVE ROAD
	TRAIL
	RAILROAD
	B.L.M. OFFICE
	LOOKOUT STATION
	RECREATION SITE
	U.S. INTERSTATE HIGHWAY
	U.S. HIGHWAY
	STATE HIGHWAY
	B.L.M. ROAD SYSTEM

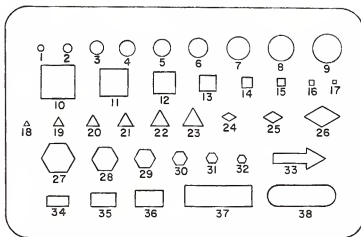


9161—MAP SYMBOLS

MAP TEMPLET KEYS



TEMPLET A
(USGS)



TEMPLET B
(DU-ALL #411)

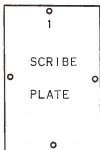
NOTE--MANY SYMBOLS REQUIRE THAT THE TEMPLET BE PLACED IN A COMBINATION OF POSITIONS TO PRODUCE THE DESIRED SCRIBED SYMBOL IMAGE.



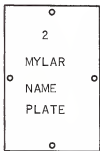
9161-MAP SYMBOLS

MAP SCRIBING PROCESSES

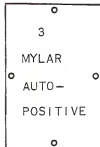
A. ONE-COLOR SCRIBING PROCESS--USED IN PREPARING ONE-HALF-INCH SCALE BASIC SERIES MAPS; THE ONE-INCH SCALE BASIC SERIES MAPS; AND THE TWO-INCH SCALE BASIC SERIES MAPS.



STEP 1. SCRIBE (RIGHT READING) ALL MAP DETAIL EXCEPT NAMES, LEGEND, AND MARGINAL INFORMATION ON ONE SCRIBE PLATE. USE .0075" THICK SCRIBE COAT.



STEP 2. PREPARE THE NAME PLATE ON .005" MYLAR, PUNCH-REGISTERED TO THE SCRIBED BASE PLATE. LEROY ALL NAMES, LEGEND, AND MARGINAL INFORMATION IN THE APPROPRIATE POSITIONS. PLACE THE STIK-UP HWY. ROUTE MARKER NUMBERS OVER THE PROPER ROUTE SYMBOLS. ALSO PLACE OTHER STIK-UP SYMBOLS ON NAME PLATE.



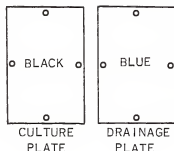
STEP 3. REPRODUCE ONE COMPOSITE MYLAR AUTO-POSITIVE, FROM THE SCRIBED BASE PLATE AND NAME PLATE (USE EMULSION TO EMULSION PROCESS). THE AUTO-POSITIVE IS USED TO MAKE ALL DUPLICATE PAPER OR FILM COPIES OF THE MAP AS REQUIRED. THE SCRIBED BASE PLATE AND NAME PLATE ARE MASTER ORIGINALS WHICH SHOULD BE TREATED WITH CARE AND KEPT FILED.



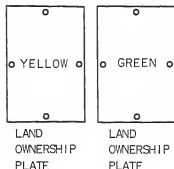
9161-MAP SYMBOLS

B. MULTI-COLOR SCRIBING PROCESS--USED IN PREPARING THE 16 INCH X 21 INCH BASIC SERIES COLOR QUADRANGLE MAP.

NOTE--IMAGED SCRIBE PLATES, (RIGHT READING), ARE PREPARED FROM ORIGINAL COMPILATION NEGATIVE. IMAGE REGISTER IS MAINTAINED BETWEEN SCRIBE PLATES BY USE OF REGISTER STUDS POSITIONED IN THE CENTER OF ALL FOUR MARGINS OUTSIDE THE TRIM LINE.



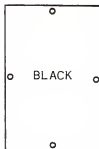
STEP 1. SCRIBE ALL CULTURE (INCLUDES PUBLIC LAND SURVEY LINES) ON ONE SCRIBE PLATE (BLACK).
SCRIBE ALL DRAINAGE AND WATER FEATURES ON A SEPARATE SCRIBE PLATE (BLUE).



STEP 2. PREPARE FROM THE SCRIBED CULTURE PLATE THE NUMBER OF PHOTO-DUPLICATE PEEL-COAT SCRIBE PLATES REQUIRED FOR THE VARIETY OF LAND OWNERSHIP TO BE SHOWN. PRINTING OF LAND OWNERSHIP WILL CONFORM TO THE BUREAU'S STANDARD COLOR-GUIDE CONTAINED IN SECTION H.



B. (CONTINUED)

NAME
PLATE

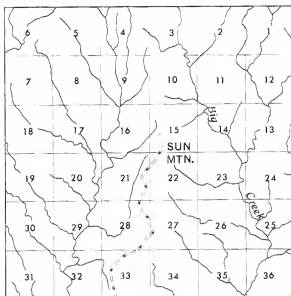
STEP 3. NAME PLATES CAN BE COMPILED USING EITHER A PLAIN MYLAR OVERLAY OR A DROP-OUT-BLUE MYLAR POSITIVE PREPARED FROM THE CULTURE AND DRAINAGE COMPOSITE (NAME PLATES, ALSO, MUST BE PUNCHED FOR STUD REGISTER). STIK-UP LETTERING NAMES (PREVIOUSLY SELECTED AND ORDERED) ARE PLACED AND FIXED IN THEIR APPROPRIATE POSITIONS ON THE NAME PLATE.

FINISHED
16"X21" COLOR
QUADRANGLE MAP

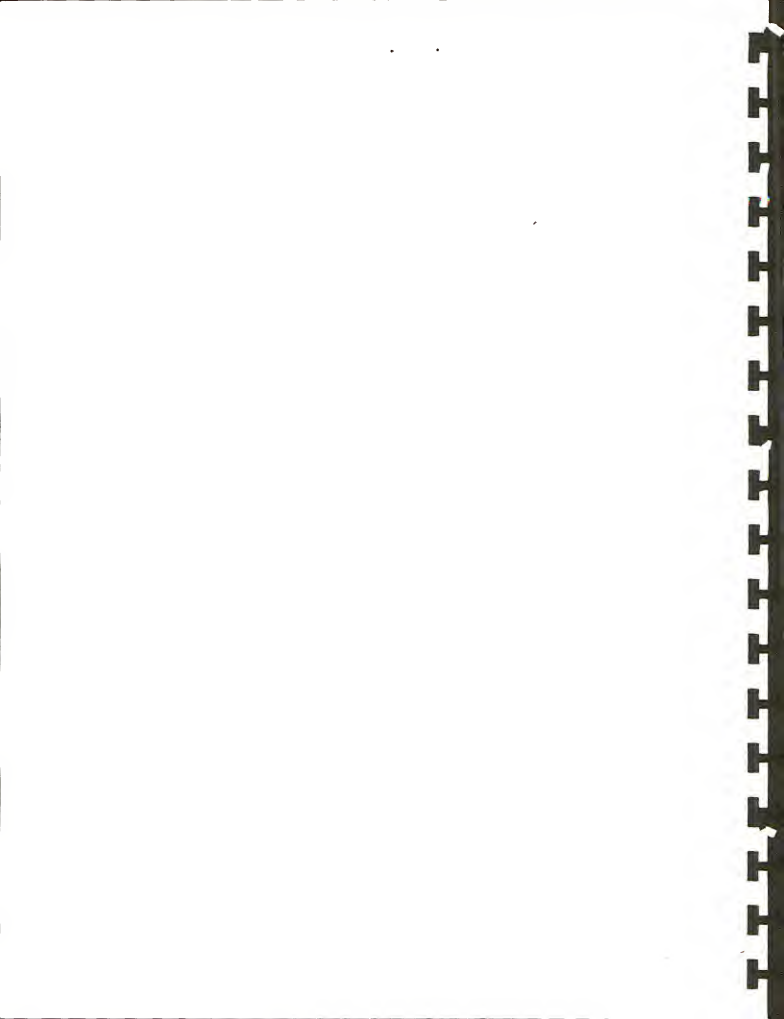
STEP 4. A MULTI-COLOR OFFSET PRINTING IS MADE FROM THE COMPOSITE IMAGES OF ALL PLATES. THIS PRINTING PROCESS PRODUCES THE DESIRED 16 INCH X 21 INCH BASIC SERIES COLOR QUADRANGLE MAP.



B. L. M.
STANDARD DRAINAGE DENSITY PATTERN
FOR
BASIC SERIES MAPS

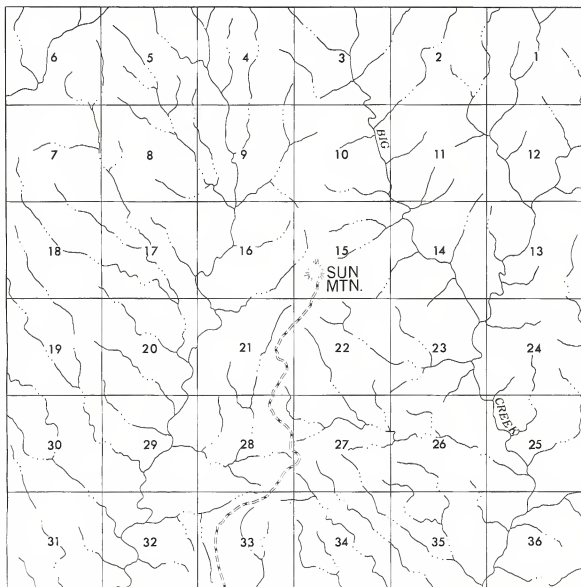


SCALE $\frac{1}{4}$ " = 1 MILE

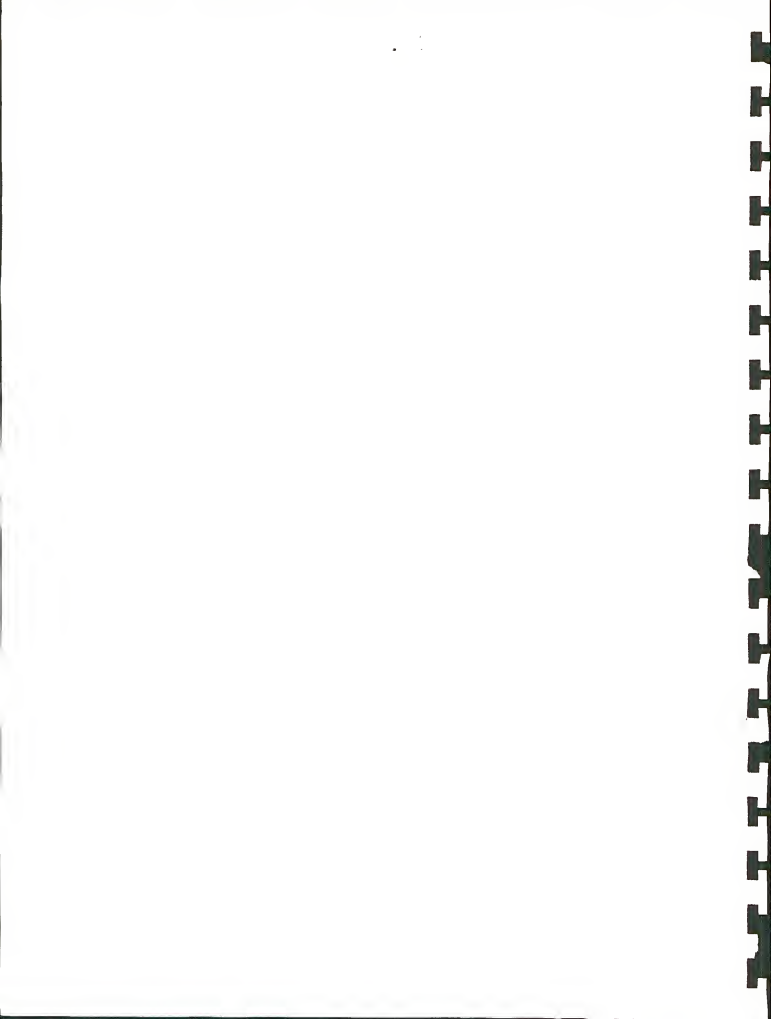


B. L. M.
STANDARD DRAINAGE DENSITY PATTERN
FOR
BASIC SERIES MAPS

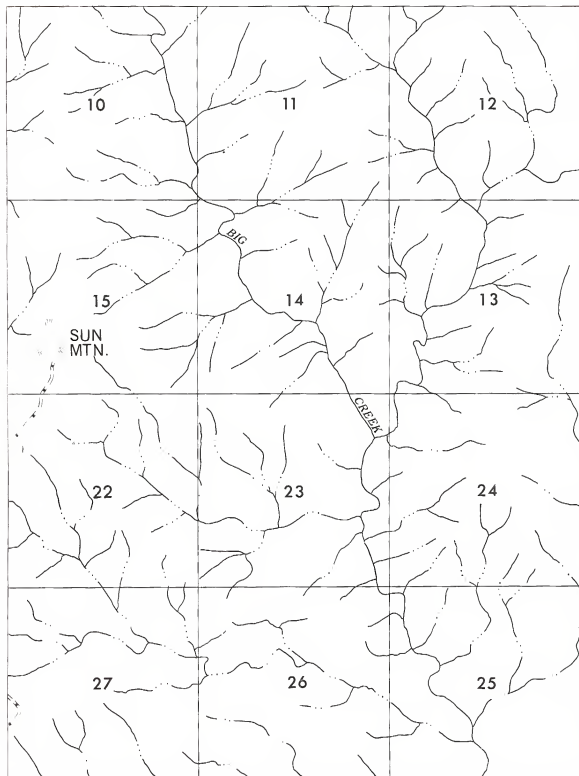
Illustration No. 11b



SCALE 1" = 1 MILE



STANDARD DRAINAGE DENSITY PATTERN
FOR
BASIC SERIES MAPS



SCALE 2" = 1 MILE



**PART
IV**

**SYMBOLS FOR FIELD DATA
IDENTIFICATION AND DELINEATION**



RECORDATION OF DATA OBTAINED FROM FIELD STUDIES — e.g. RANGE & FOREST INVENTORIES, LAND CLASSIFICATION, etc.

A. RED INK

<u>1. MAP SYMBOL</u>	<u>NAME</u>	<u>FIELD SYMBOL</u>
=====	ALL WEATHER ROAD	—————
=====	SEASONAL ROAD	-----
x x x x x	PRIMITIVE ROAD	P-----P
-----	TRAIL	I-----I
++++++	RAILROAD	++++++
++++++	RAILROAD (Abandoned)	++++++

B. BLUE INK

1. All Drainage and Water Features as given in Bureau Symbol Manual will be delineated in Blue Ink for all field data recordation (Range, Forest or Land Resource Survey).
2. Map and Field Symbols are identical in form.

C. GREEN INK or ORANGE INK

<u>1. MAP SYMBOL</u>	<u>NAME</u>	<u>FIELD SYMBOL</u>
.....	RANGE or FOREST TYPE LINE	~~~~~

D. BLACK INK

1. All Boundaries, Markers & Monuments, Works & Structures (except Roads, Railroads & Trails), and Relief Features will be delineated and identified in Black Ink.
2. Map and Field Symbols are identical in form.
3. All Symbol Descriptions to be labeled in Black Ink.

GENERAL:

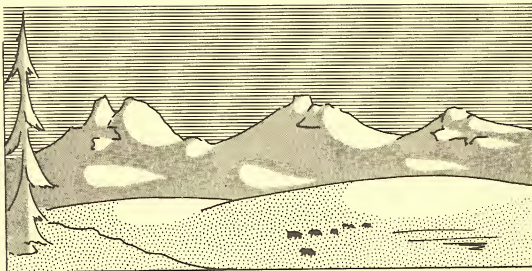
Field Personnel should use "Rapidograph" type pens and inks similar to "Pelikan" brand for best results.



SECTION

B

RANGE





9161—MAP SYMBOLS

SECTION B INDEX

Part I	Map Symbols
Part II	Plant Symbols
Part III . .	Range Vegetation Types








9161-MAP SYMBOLS

PART I





















Map Symbols



9161-MAP SYMBOLS

<u>NAME</u>	<u>SYMBOL</u>	<u>INSTRUCTIONS</u>
A. <u>Boundary</u>		
1. Allotment	• • • • •	Detailed drafting instructions, where applicable, are found in Section A.
2. Fenced allotment	• x • x • x •	
3. Pasture boundary (within allotment)	o o o o o o o o	
4. Corral	C	
B. <u>Fences</u>		
1. Fence	- x - x - x -	
2. Cattle Guard	- x  x -	
3. Road fenced one side		
4. Road fenced both sides		
5. Railroad fenced one side		
6. Railroad fenced both sides		
C. <u>Roads</u>		
1. Trails	- - - - -	
2. Livestock Route (Established) Stock Driveway	— — —	
3. Other standard road		
symbols are found under Section A.		

9161—MAP SYMBOLS

NAME	SYMBOL	INSTRUCTIONS
D. <u>Water Facilities</u>		Detailed drafting instructions are found in Section A where applicable.
1. Pipeline		
2. Well		
3. Artesian well		
4. Windmill		
5. Water trough		
6. Water storage		
7. Water catchment		
8. Guzzler		
9. Water hole or seep.		
10. Spring		
11. Spring (improved)		
12. Earth tank or charco		
13. Reservoir or retention dam		
14. Detention dam		
15. Check dam		
16. Diversion dam		
17. Large dam		
18. Rivers or large stream		
19. Perennial stream		
20. Intermittent stream or wash		

9161—MAP SYMBOLS

NAME

SYMBOL

INSTRUCTIONS

21. Lake or pond
22. Intermittent lake or pond
23. Dry lake or pond
24. Marsh
25. Ditch or canal



Detailed drafting instructions are found in Section A where applicable.

E. Studies.

1. Key area

K

Areas which show the "pulse" of the range.

2. Crucial area

C-C-C-

A portion of the range which requires special management to protect, maintain or improve vegetation, soil conditions, esthetic values, wildlife habitat, etc.

3. Range and Wildlife Studies

L

- a. Exclosure

LE

- b. Production

LP

- c. Utilization

LU

- d. Trend

LT

- e. Condition




LC

- f. Climate

LW

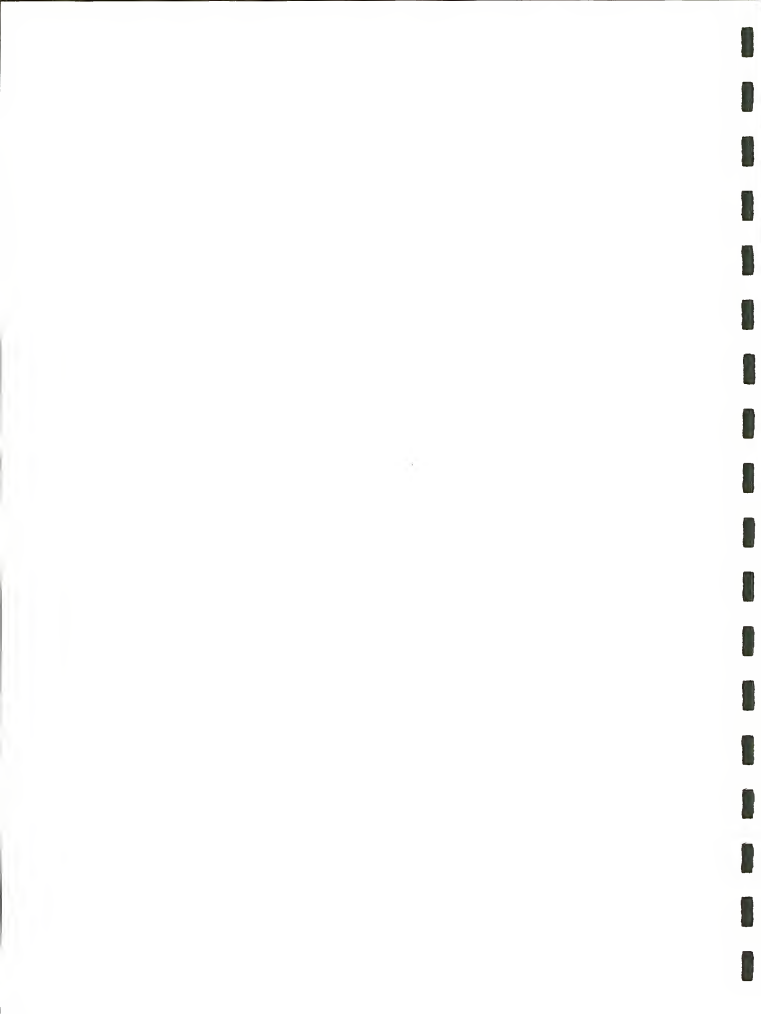
All study locations will include the symbol with the appropriate latter symbol included. Example: K~~LE~~P, Exclosure with a trend study on a key area. Wildlife studies will be identified with subscript "w" under study symbol. Example: LC_w, condition study for wildlife.

9161—MAP SYMBOLS

<u>NAME</u>	<u>SYMBOL</u>	<u>INSTRUCTIONS</u>
F. <u>Relief Features</u>		Detailed drafting instructions are found in Section A where applicable.
1. Bluffs, cliffs, rims		
2. Prominent ridge top		
3. Prominent peak		
4. Sand		
5. Lava		

PART II

Plant Symbols



9161—MAP SYMBOLS

PLANT SYMBOLS

A. Plant Symbols. Plant symbols are a means by which uniformity and standardization of plant names can be used for mapping and listing of different species of vegetation throughout BLM administered lands.

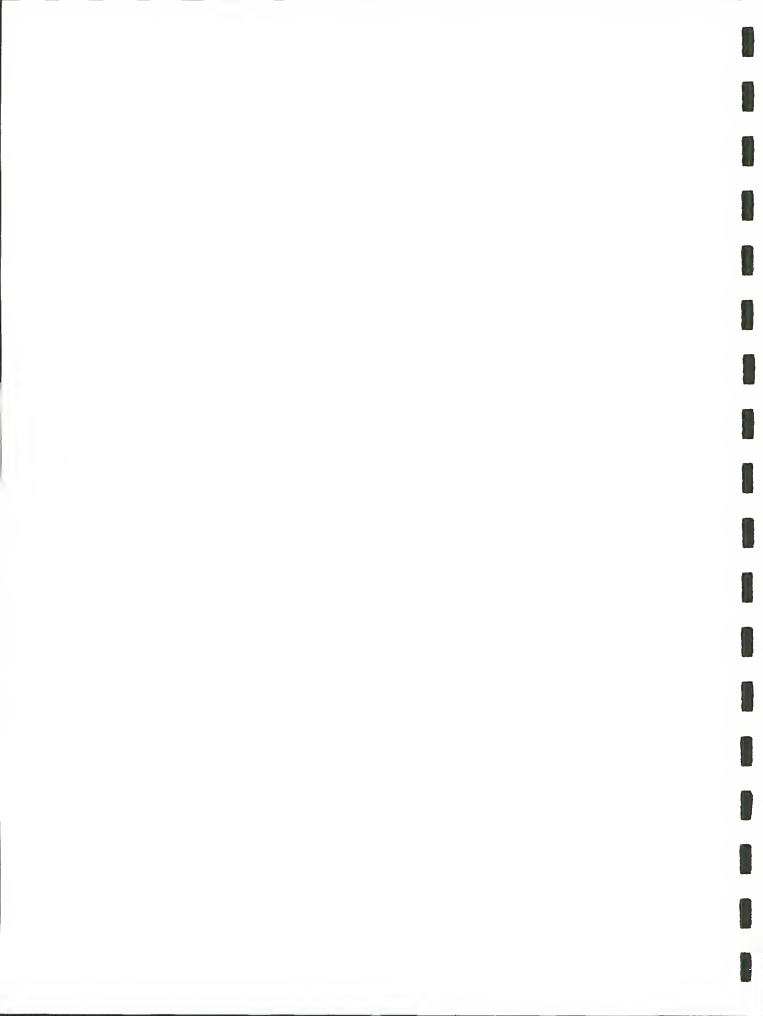
B. Examples:

<u>Symbol</u>	<u>Botanical Name</u>	<u>Common Name</u>	<u>Definition</u>
Artr	<u>Artemisia</u> <u>tridentata</u>	Big sagebrush	Plant symbols are derived from the first two letters (<u>Ar</u>) of the generic name and the first two letters (<u>tr</u>) of the species name.
Bрте	<u>Bromus tectorum</u>	Cheatgrass	
Agsp	<u>Agropyron</u> <u>spicatum</u>	Bluebunch wheatgrass	
Agin (1)	<u>Agropyron inermis</u>	Beardless wheatgrass	Plants which have the same symbol shall have a number (1) after the more important symbol and a number (2) after the less important symbol.
Agin. (2)	<u>Agropyron inter-</u> <u>medium</u>	Intermediate wheatgrass	



PART III

Range Vegetation Types



9161—MAP SYMBOLS

RANGE VEGETATION TYPES

A. Introduction:

Range vegetation types are selected by the aspect of the vegetation at first appearance.

Example: As a person looks at an area he notices the general appearance is grass - the type would then be listed as -1-.

B. Basic Vegetative Types:

<u>Symbol</u>	<u>Type</u>	<u>Color</u>	<u>Description</u>
1	Grass	Light yellow	Includes grassland other than meadows.
2	Meadow	Cadmium orange	Includes areas where sedges, rushes, and moisture-enduring grasses predominate. Two classes of meadows are recognized: wet meadows and dry meadows.
3	Perennial forbs	Lake red	Includes all untimbered areas where perennial forbs predominate over other classes of vegetation.
4	Sagebrush	Stone brown	Includes all untimbered lands where sagebrush or shrubby species of similar character predominate.
5	Mountain shrub	Olive green	Includes all untimbered lands where mountain shrubs, excepting sagebrush or its subtypes, gives the main aspect to the type or is predominant vegetation.
6.	Conifer	Dark green	This type includes all range in coniferous timber supporting grasses, forbs, or shrubs, either singly or in combination.

9161-MAP SYMBOLS

<u>Symbol</u>	<u>Type</u>	<u>Color</u>	<u>Description</u>
7	Waste	Blue green	The subtype designations generally encountered in this type are as follows: 7T-waste in dense timber; 7D-waste in down timber; 7B-waste in brush; 7R-waste areas where rocky character prevents use; 7I-permanently inaccessible areas.
8	Barren	Uncolored	Includes all areas on which there is no natural vegetation, or practically none, including intermittent lake beds, saline flats, active sand dunes, shale, rock slides, lava flows, etc.
9	Pinon-juniper	Light green	Includes pinon, juniper, pinon-juniper and digger pine.
10	Broad leaf trees	Pink	Includes all range in deciduous timber.
11	Creosote bush	Bottle green	Includes areas where creosote bush (<u>Larrea</u>) constitutes the predominant vegetation.
12	Mesquite	Yellow earth	Includes areas where various species of mesquite (<u>Prosopis</u>) give the characteristic aspect or constitute the predominant vegetation.
13	Saltbush	Slate	Includes areas where the various salt desert shrubs of the <u>Atriplex</u> genus form the predominant vegetation, or give the characteristic aspect.
14	Greasewood	Royal purple	Includes areas where greasewood (<u>Sarcobatus</u>) is the predominant vegetation or gives a characteristic aspect.
15	Winterfat	Light tan	Includes areas where winterfat (<u>Eurotia</u>) gives a characteristic aspect or constitutes the predominant vegetation.

9161-MAP SYMBOLS

<u>Symbol</u>	<u>Type</u>	<u>Color</u>	<u>Description</u>
16	Desert shrub	Dark tan	Includes areas where other desert shrubs aside from those separated into individual types, constitute the predominant vegetation or give the characteristic aspect.
17	Half shrub	Wisteria	Includes areas where half shrubs (semi-woody perennials of low stature) constitute the dominant vegetation or give the characteristic aspect.
18	Annuals	Red terra cotta	Includes areas in which annual forbs or annual grasses constitute the dominant vegetation.

C. Type number and symbols:

Each range type will include both the type number and plant symbols.

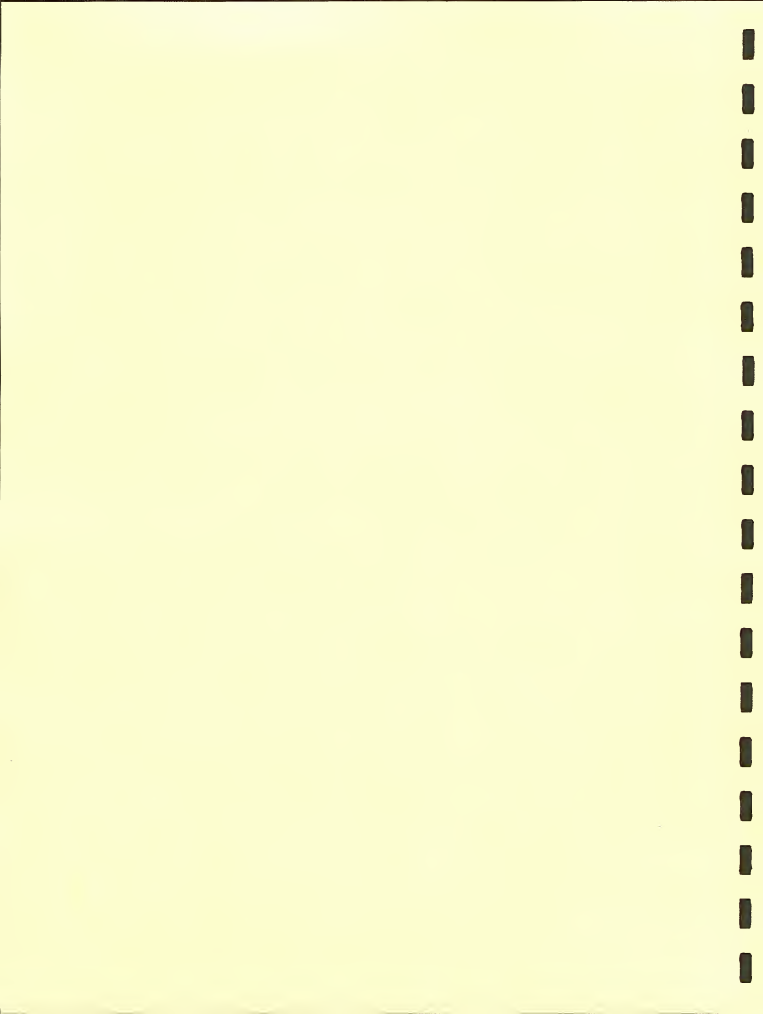
Example: The type of grass is (1), the major species is Agropyron spicatum (Blue Bunch Wheatgrass) Agsp, and the minor or less important species is Bromus Tectorum (Cheatgrass) Brte - the range type would become 1-Agsp-Brte.



**SECTION
C**

FORESTRY





9161—MAP SYMBOLS

FORESTRY

SECTION
C

FOREST CLASSIFICATION

PART I PACIFIC NORTHWEST

PART II OTHER WESTERN STATES



PART I

PACIFIC NORTHWEST

FOREST CLASSIFICATION



9161—MAP SYMBOLS

A. COMMERCIAL FOREST LAND CLASSES AND SYMBOLS

I. Stand Size Class Symbols

<u>Symbol</u>	<u>Stand Size Class</u>	<u>Description</u>
1	Seeding & saplings	0 - 5 in. d.b.h.
2	Pole timber	5 - 11 in. d.b.h.
3	Small saw timber	11 - 21 in. d.b.h.
4	Large saw timber	21 - in. and larger d.b.h.
5	Large old growth Douglas-fir saw timber	21 in. and larger d.b.h. mainly old growth, usually over 300 years old.

II. Condition Classes and Symbols

<u>Symbol</u>	<u>Condition Class</u>
X	Recent clear-cut area, nonstocked (cut over during the last 5 years)
XO	Old clear-cut area, nonstocked
F	Area deforested by fire, nonstocked
I	Area deforested by insects, nonstocked
WT	Area deforested by wind, nonstocked

III. Forest Type Symbol Prefixes

<u>Symbol</u>	<u>Description</u>
R	Residual stand after partial cutting
X	Restocked clear-cut area
PL	Planted area
S	Indicates a seeded area resulting from manual or aerial seeding.

IV. Density Classes and Symbols

<u>Symbol</u>	<u>Density</u>	<u>Description</u>
-	Poorly stocked	10 - 40%
=	Medium stocked	40 - 70%
≡	Well stocked	70 - 100%

V. Timberland Types and Symbols

<u>Type Symbol</u>	<u>Local Type Name</u>
D	Douglas fir
P	Ponderosa pine
H	Western hemlock
S	Sitka spruce
C	Cedars
FM	True fir-mountain hemlock
WL	Western larch
WF	White fir
W	White pines
LP	Lodgepole pine
HD	Hardwoods

9161—MAP SYMBOLS

B. WOODLAND OR NONCOMMERCIAL FOREST TYPE AND NONFOREST LAND CLASSES AND SYMBOLS

I. Woodland or Noncommercial Forest Types

<u>Symbol</u>	<u>Description</u>
J	Juniper
OM	Oak-madrone (scrub stands)
SA	Subalpine (nonmerchantable stands above commercial forest zones)
NR	Forestland within a commercial forest zone, too rocky, steep, or sterile to produce a merchantable stand, or which otherwise qualifies as commercial forest land, but due to physical inaccessibility and/or damageable site conditions is unavailable economically in the foreseeable future.

II. Nonforest Land Types

<u>Symbol</u>	<u>Description</u>
A	Agricultural (cultivated or stump pasture)
G	Grass or brush, including chaparral (not part of operating farm unit)
O	Non-vegetative (including barrens, tide flats, cities, and unmeandered water)

9161—MAP SYMBOLS

C. SPECIES SYMBOLS

<u>Symbol</u>	<u>Common and Scientific Name</u>
d	Douglas-fir (<i>Pseudotsuga menziesii</i>)
es	Engelmann spruce (<i>Picea engelmanni</i>)
s	Sitka spruce (<i>Picea sitchensis</i>)
mh	Mountain hemlock (<i>Tsuga mertensiana</i>)
h	Western hemlock (<i>Tsuga heterophylla</i>)
yc	Alaska cedar (<i>Chamaecyparis nootkatensis</i>)
ic	Incense cedar (<i>Libocedrus decurrens</i>)
pc	Port Orford cedar (<i>Chamaecyparis lawsoniana</i>)
c	Western redcedar (<i>Thuja plicata</i>)
lp	Lodgepole pine (<i>Pinus contorta latifolia</i>) Shore pine (<i>Pinus contorta</i>) Knobcone pine (<i>Pinus attenuata</i>)
p	Ponderosa pine (<i>Pinus ponderosa</i>) Jeffrey pine (<i>Pinus jeffreyi</i>)
sp	Sugar pine (<i>Pinus lambertiana</i>)
w	Western white pine (<i>Pinus monticola</i>) Whitebark pine (<i>Pinus albicaulis</i>)
af	Alpine fir (<i>Abies lasiocarpa</i>)
nf	Noble fir (<i>Abies procera</i>)
a	Pacific silver fir (<i>Abies amabilis</i>)
srf	California red fir (<i>Abies magnifica</i>)
wf	White fir (<i>Abies concolor</i>) Grand fir (<i>Abies grandis</i>)
wl	Western larch (<i>Larix occidentalis</i>) Alpine larch (<i>Larix lyallii</i>)
r	Redwood (<i>Sequoia sempervirens</i>)
j	Western juniper (<i>Juniperus occidentalis</i>)

9161-MAP SYMBOLS

C. SPECIES SYMBOLS

<u>Symbol</u>	<u>Common and Scientific Name</u>
m	Bigleaf maple (<i>Acer macrophyllum</i>)
bc	Black cottonwood (<i>Populus trichocarpa hastata</i>) Quaking aspen (<i>Populus tremuloides</i>)
my	California laurel (<i>Umbellularia californica</i>)
ch	Golden chinquapin (<i>Castanopsis chrysophylla</i>)
co	California black oak (<i>Quercus kelloggii</i>)
clo	Canyon live oak (<i>Quercus chrysolepis</i>)
oo	Oregon white oak (<i>Quercus garryana</i>)
oa	Oregon ash (<i>Fraxinus oregana</i>)
mad	Pacific madrone (<i>Arbutus menziesii</i>)
ra	Red alder (<i>Alnus rubra</i>)
to	Tanoak (<i>Lithocarpus densiflorus</i>)
b	Western paper birch (<i>Betula papyrifera</i> var. <i>occidentalis</i>) Northwestern paper birch (<i>Betula</i> papyrifera var. <i>subcordata</i>)

D. USE OF TYPE SYMBOLS WITH EXAMPLES

<u>Symbols</u>	<u>Description</u>
D5, h =	Douglas-fir, large sawtimber, mainly old growth fir, but with more than 20% of the cubic-foot volume in western hemlock, medium stocked.
FM ⁴ , mh = 140	True fir-mountain hemlock, large sawtimber, mainly mountain hemlock, with no other species making up 20% or more of the cubic-foot volume of the stand, well stocked, 140 years in age.
C ⁴ , c,d =	Cedar, large sawtimber, comprised of a plurality of cubic-foot volume in red cedar and at least 20% Douglas-fir, medium stocked, over 160 years in age.
D ⁴ =	Douglas-fir, large sawtimber, well stocked, no other species, making up 20% or more of cubic-foot volume of stand.
HD2, OO,oa = 90	Hardwood poletimber, plurality of cubic-foot volume in Oregon white oak, but with more than 20% of the volume Oregon ash, well stocked, 90 years in age.
D1, ra, h = 10	Douglas-fir seedling and sapling stand predominantly Douglas-fir but with more than 20% each of red alder and western hemlock with western hemlock least abundant, well stocked 10 years old.
RP ⁴ -	Residual (partially cut) ponderosa pine, large sawtimber, with no other species making up 20% or more of the cubic-foot volume of the stand, poorly stocked.
RP3, d =	Residual (partially cut) ponderosa pine, small sawtimber, medium stocked, having a plurality of cubic-foot volume in ponderosa pine but with more than 20% of the volume in Douglas-fir, medium stocked.
PL D1 = 10	A planted stand of seedling and sapling Douglas-fir medium stocked, 10 years old.

9161-MAP SYMBOLS

<u>Symbol</u>	<u>Description</u>
$\frac{F}{D4=120}$	A fire killed stand of merchantable Douglas-fir, large sawtimber, medium stocked, 120 years in age.
$\frac{D4=140}{WT\ 3/A}$	Douglas-fir, large sawtimber medium stocked, 140 years in age with three windthrown trees per acre.
$\frac{D5-}{D3 = 70}$	A two-story Douglas-fir stand. Upperstory is large sawtimber, over 300 years in age, poorly stocked. The understory is small sawtimber, medium stocked, 70 years in age.
$\frac{D4 -}{D3, IC, P = 20 - 140}$	A dual stand of Douglas-fir with an overstory of large sawtimber, poorly stocked and understory of Douglas-fir poletimber in combination with at least 20% of incense cedar and ponderosa pine, medium stocked varying in age from 20 years to 140 years.

E. COMMERCIAL FOREST COLOR CODE

Pacific Northwest should use color codes recommended by Pacific Northwest Forest Experiment Station.



PART 2

OTHER WESTERN

STATES

FOREST CLASSIFICATION



9161-MAP SYMBOLS

A. FOREST STAND CLASSIFICATIONS AND SYMBOLS

I. Forest Types and Symbols

<u>Type Symbol</u>	<u>Local Type Name</u>
D	Douglas-fir
P	Ponderosa pine
LP	Lodgepole pine
L	Western Larch
S	Spruce (Engelmann, Blue, Black Hills)
DS	Dead Spruce
SF (Optional)	Spruce fir (Spruce and/or true fir)
C	Cedar
WF	White fir
W	White pines
WLP	Whitebark, Limber and Bristlecone pine
AF	Alpine and Corkbark fir
PJ	Pinon-juniper
A	Aspen
Co	Cottonwood
C	Chaparral
OH	Other Hardwood
MH	Mountain Hemlock
SS	Sitka Spruce
WS	White Spruce
BS	Black Spruce
WB	White Birch
S/B	White Spruce - White Birch

9161-MAP SYMBOLS

II. Stand-Size Classes and Symbols

<u>Symbol</u>	<u>Stand-Size Class</u>	<u>Description</u>
6	Nonstocked and deforested	Forest Land Less than 10% stocked
7	Seedling and saplings	0 - 4.99 in. d.b.h.
8	Poletimber	5.0 - 10.99 in. d.b.h.
9	Sawtimber	11.0 + in. d.b.h.

III. Density Classes and Symbols

<u>Symbol</u>	<u>(Optional)*</u>	<u>Description</u>
-	P	10 - 39% crown closure
=	M	40 - 69% crown closure
≡	W	70+% crown closure

* Symbol used must be consistent throughout state. Show first for all trees and then for sawtimber if sufficiently important.

B. FOREST LAND CLASSES AND SYMBOLS

I. Commercial Forest Lands

Commercial forest stands will show the forest type, stand size, and density; e.g. P8 = ; optional: P8M

II. Noncommercial-Productive Forest Lands

Show by forest type, stand size and density preceded by the prefix (R); e.g. (R)P8 = ; optional: (R)P8M

III. Noncommercial-Unproductive Forest Lands

Show by forest type, stand size, and density preceded by the prefix (N), e.g. (N)P7 = ; optional: show by forest type only preceded by the prefix (N), e.g. (N)P.

C. NON-FOREST LANDS













<u>Symbol</u>	<u>Description</u>
OW	Water - under 40 acres
ONF	Other non-forest

9161—MAP SYMBOLS

D. USE OF TYPE SYMBOLS WITH EXAMPLES

<u>Symbol</u> (Optional)	<u>Description</u>
P9= P9WM	Ponderosa pine type, sawtimber, well stocked by all crowns, medium stocked by sawtimber crowns.
D8= D8M	Douglas-fir type, poletimber stand, medium stocked by all crowns.
P6	Ponderosa pine type, nonstocked or deforested.
(N)PJ	Pinon-juniper type, noncommercial unproductive forest land.
(R)LP8= (R)LP8M	Lodgepole pine type, poletimber, medium stocked by all crowns, noncommercial - productive.





















E. COLOR CODE FOR FOREST TYPE CLASSIFICATIONS

<u>Cover Type</u> <u>Class</u> <u>Symbol</u>	<u>Stand Size</u> <u>Class</u> <u>Symbol</u>	<u>LEGEND AND PENCIL COLOR</u> <u>1/</u>
<u>CONIFERS</u>		
D - - - - -	6	 Horizontal Line D354
(Douglas Fir)	7	 Vertical Line D354
	8	 Cross Hatch D354
	9	 Solid D354
P - - - - -	6	 Horizontal Line D324
(Ponderosa Pine)	7	 Vertical Line D324
	8	 Cross Hatch D324
	9	 Solid D324
LP- - - - -	6	 Horizontal Lines D351
(Lodgepole Pine)	7	 Vertical Lines D351
	8	 Cross Hatch D351
	9	 Solid D351

9161-MAP SYMBOLS

Cover Type	Stand Size		
Class	Class		
Symbol	Symbol	LEGEND AND PENCIL COLOR	1/

CONIFERS (Cont.)






L - - - - - (Western Larch)	6		Horizontal Lines D331 $\frac{1}{2}$
	7		Vertical Lines D331 $\frac{1}{2}$
	8		Cross Hatch D331 $\frac{1}{2}$
	9		Solid D331 $\frac{1}{2}$
S - - - - - (Spruce)	6		Horizontal Line D320
	7		Vertical Line D320
	8		Cross Hatch D320
	9		Solid D320
C - - - - - (Cedar)	6		Horizontal Lines D325
	7		Vertical Lines D325
	8		Cross Hatch D325
	9		Solid D325
WF - - - - - (White Fir)	6		Horizontal Lines D350
	7		Vertical Lines D350
	8		Cross Hatch D350
	9		Solid D350
W - - - - - (White Pine)	6		Horizontal Lines D323 $\frac{1}{2}$
	7		Vertical Lines D323 $\frac{1}{2}$
	8		Cross Hatch D323 $\frac{1}{2}$
	9		Solid D323 $\frac{1}{2}$

9161—MAP SYMBOLS














Cover Type Class Symbol	Stand Size Class Symbol	LEGEND AND PENCIL COLOR
-------------------------------	-------------------------------	-------------------------

1/

CONIFERS (Cont.)

AF- - - - -	6		Horizontal Lines	D323
(Alpine and Corkbark Fir)	7		Vertical Lines	D323
	8		Cross Hatch	D323
	9		Solid	D323
PJ (Pinyon-Juniper)			Cross Hatched Dashed	D321

HARDWOODS

A - - - - -	6		Horizontal Lines	D353 $\frac{1}{2}$
(Aspen)	7		Vertical Lines	D353 $\frac{1}{2}$
	8		Cross Hatch	D353 $\frac{1}{2}$
	9		Solid	D353 $\frac{1}{2}$
Co- - - - -	6		Horizontal Lines	D322
(Cottonwood)	7		Vertical Lines	D322
	8		Cross Hatch	D322
	9		Solid	D322
C (Chaparral)			Vertical Dashed	D321
OH- - - - -	6		Horizontal Lines	D352 $\frac{1}{2}$
(Other Hardwoods)	7		Vertical Lines	D352 $\frac{1}{2}$
	8		Cross Hatch	D352 $\frac{1}{2}$
	9		Solid	D352 $\frac{1}{2}$

9161—MAP SYMBOLS

Cover Type	Stand Size	
Class	Class	
<u>Symbol</u>	<u>Symbol</u>	<u>LEGEND AND PENCIL COLOR</u> ^{1/}

NON-FOREST

OW
(Water)



Solid

D320¹/₂

ONF
(Other Non Forest)



Uncolored

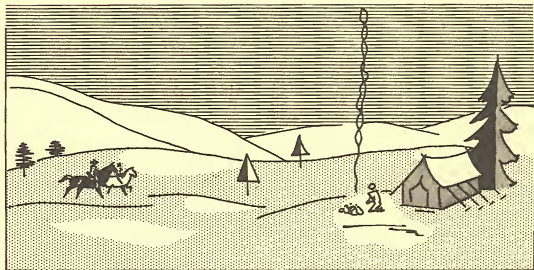
^{1/} D refers to colored pencil Dixon

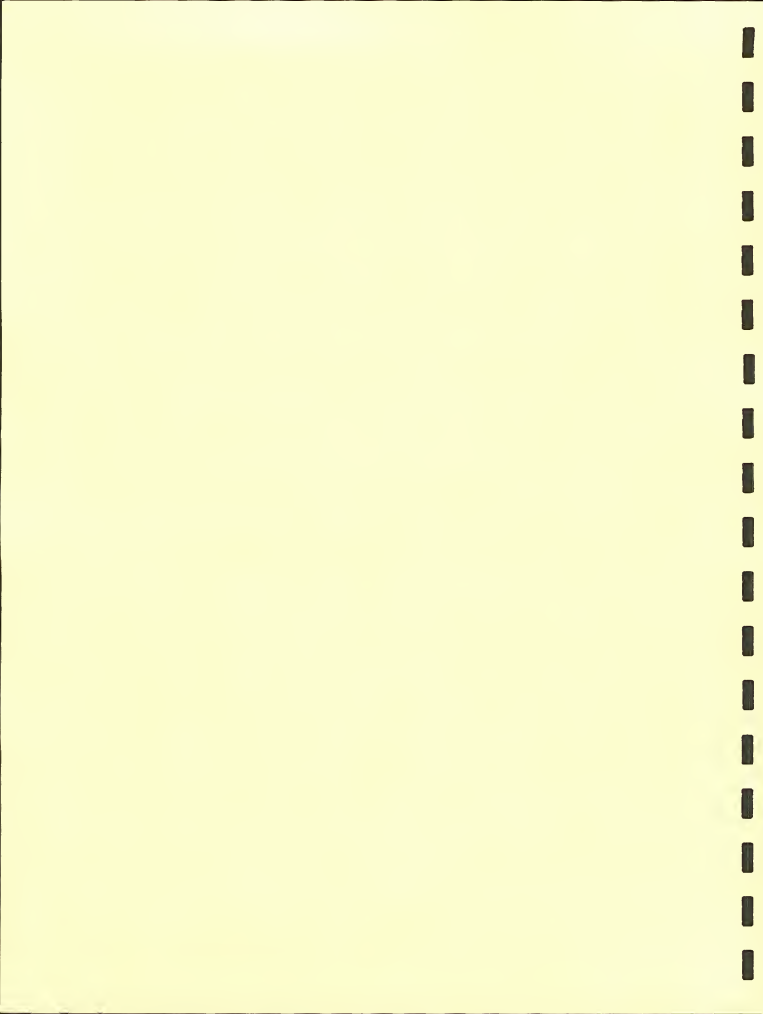
Alaska may develop their own color code based on the approach shown above.

SECTION

D

RECREATION

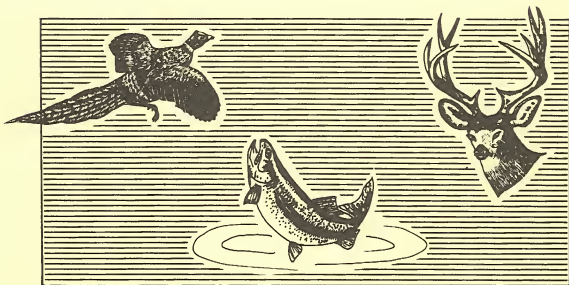




SECTION

E

WILDLIFE

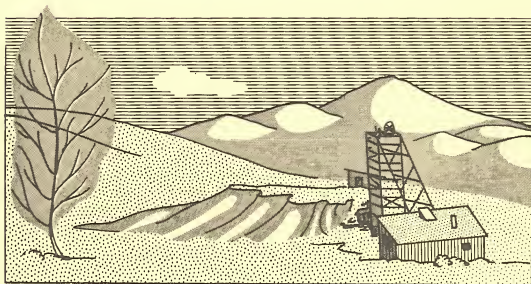


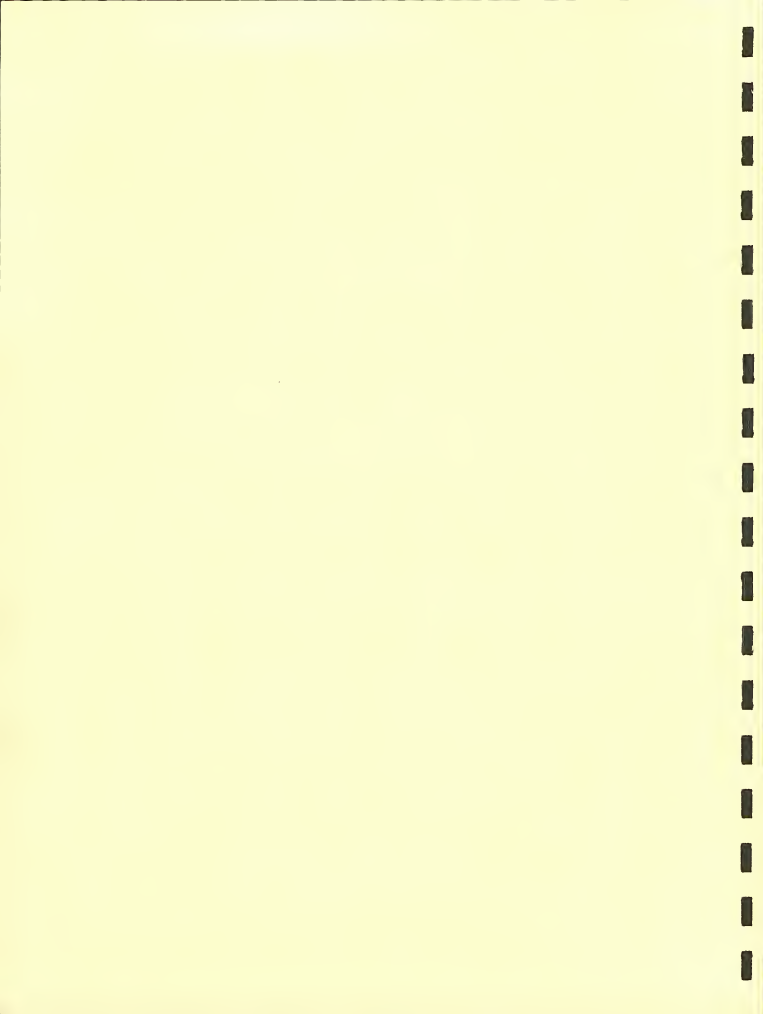


SECTION

F

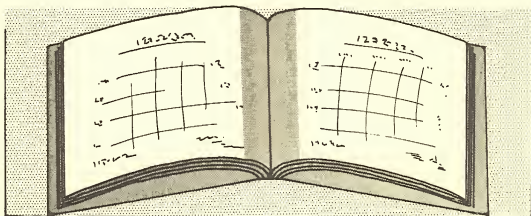
MINERALS

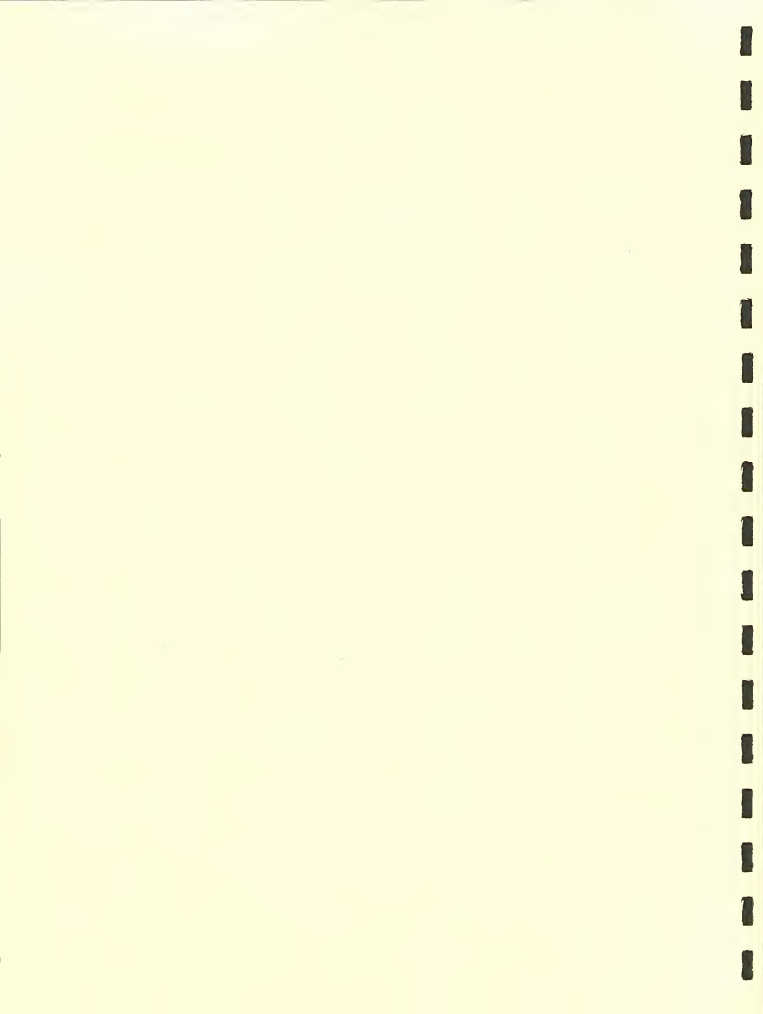




SECTION
G

RECORDS
IMPROVEMENT

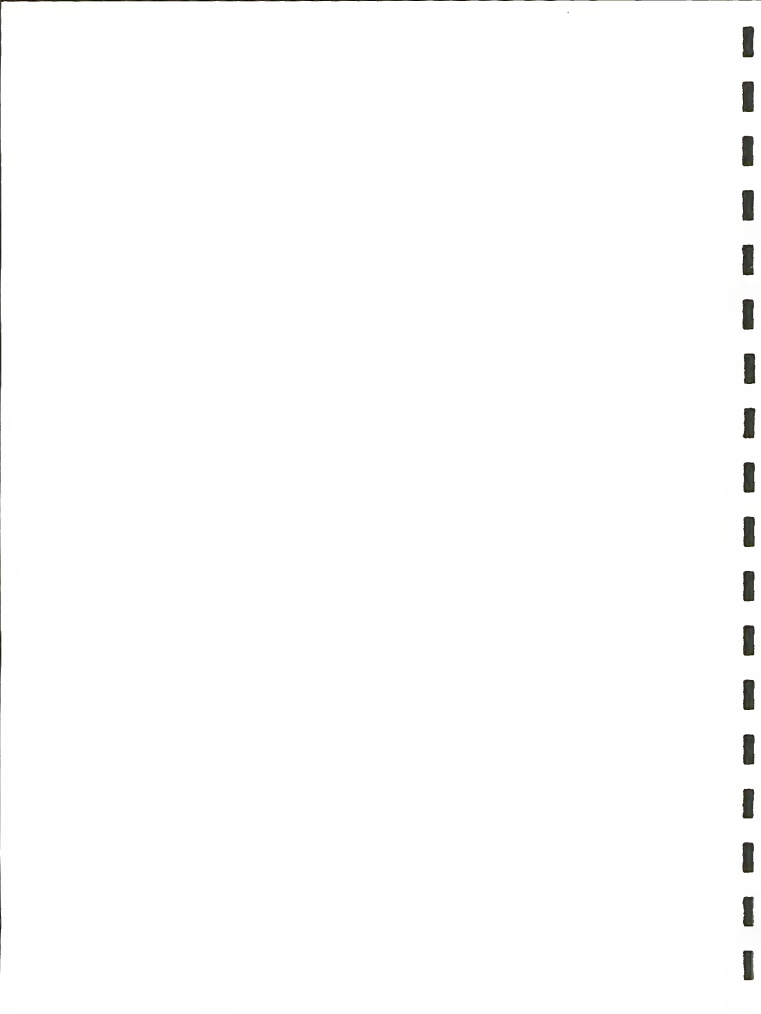




LAND STATUS LEGEND

GROUP TWO

THE GROUP TWO LAND STATUS LEGEND (IN CONJUNCTION WITH GROUP ONE) PROVIDES THE NECESSARY MAP SYMBOL IDENTIFICATION TO SATISFY ALL ESSENTIAL LAND STATUS RECORDATION REQUIREMENTS. GROUP ONE IS PRIMARILY CONCERNED WITH AND APPLICABLE TO THE BUREAU'S FOUR BASIC SERIES MAPS, WHEREAS GROUP TWO IS INTENDED FOR USE IN SPECIAL PURPOSE MAPPING, REPORTS, AND SIMILAR ENDEAVORS DEMANDING DETAILED LAND STATUS SYMBOLIZATION. THE SYMBOLS SHOWN ON THE FOLLOWING PAGES COMPLETE SECTION H.



LAND STATUS LEGEND

GROUP TWO

BASIC OWNERSHIP

DESCRIPTION	LETTER SYMBOL
FEDERAL (Other than PD)	F
STATE	S
PRIVATE OR LOCAL GOVERNMENT	NONE

"ZONES" AND CLASSIFICATIONS

BLM RECREATION SITE	Z3
BUFFER OR SCENIC ZONE	Z9
JOINT RECREATION SITE	Z5
POTENTIAL TRANSFER TRACT	Z6
RECREATION AND PUBLIC PURPOSES ACT CLASSIFICATION	Z10
RECREATION AREA	Z2
RECREATION COMPLEX	Z1
RECREATION HOMESITE LEASE AREA	Z4
RECREATION MANAGEMENT CLASSIFICATION	Z11
RECREATION RESERVE SITE	Z7
SMALL TRACT CLASSIFICATION	Z13
TRANSFER TRACT	Z8
WILDLIFE MANAGEMENT CLASSIFICATION	Z12
CLASS. & M.U. ACT -DISP. OVER 2560a	C&MU-D
CLASS. & M.U. Act - RETENTION	C&MU-R

9161—MAP SYMBOLS

GROUP TWO

ADMINISTRATIVE UNITS

DESCRIPTION	LETTER SYMBOL
GENERAL ORDERS OF WITHDRAWAL	NGO
CRAZING DISTRICT	NGD
INDIAN LANDS OR RESERVATION	NIR
MILITARY RESERVATION	NMR
OREGON AND CALIFORNIA REVESTED LANDS	NO&C
NATIONAL FOREST	NF
NATIONAL GRASSLANDS	NGL
NATIONAL MONUMENT	NM
NATIONAL PARK	NP
NATIONAL RECREATION AREA	NRA
RECLAMATION PROJECT	NRP
WILDLIFE REFUGE	NWR
BEST BLOCKED PLANNING UNIT	PU I
FRAGMENTED PLANNING UNIT	PU II
SPECIALIZED COOPERATIVE PLANNING UNIT	PU III
TRANSFER PLANNING UNIT	PU IV
DEFERRED ACTION PLANNING UNIT (OREGON)	PU V
RESOURCE CONSERVATION AREA	RCA
RESOURCE AREA	RA

9161-MAP SYMBOLS

GROUP TWO

RESERVATIONS AND
WITHDRAWAL APPLICATIONS

DESCRIPTION	LETTER SYMBOL
BLM WITHDRAWAL	RBLM
BLM WITHDRAWAL APPLICATION	RBLMA
BUREAU OF SPORTS FISHERIES AND WILDLIFE WITHDRAWAL	RBSFW
BUREAU OF SPORTS FISHERIES AND WILDLIFE WITHDRAWAL APPLICATION	RBSFWA
FOREST SERVICE WITHDRAWAL	RFS
FOREST SERVICE WITHDRAWAL APPLICATION	RFSA
MILITARY WITHDRAWAL	RM
MILITARY WITHDRAWAL APPLICATION	RMA
OIL SHALE	ROS
STOCK DRIVEWAY	RSD
RECLAMATION WITHDRAWAL - FIRST FORM	RBR1
RECLAMATION WITHDRAWAL APPLICATION - FIRST FORM	RBRA1
RECLAMATION WITHDRAWAL - SECOND FORM	RBR2
RECLAMATION WITHDRAWAL APPLICATION - SECOND FORM	RBRA2
UNRESERVED LANDS	V

9161—MAP SYMBOLS

GROUP TWO

NON-MINERAL

RESERVATIONS (Water & Power)

DESCRIPTION	LETTER SYMBOL
POWER SITE CLASSIFICATION	RPSC
POWER SITE DESIGNATION	RPSD
POWER SITE RESERVATION	RPSR
POWER SITE WITHDRAWAL	RPSA
PUBLIC WATER RESERVE	RPWR
PUBLIC WATER WITHDRAWAL APPLICATION	RPWA
RESERVOIR SITE	RRS

NON-MINERAL

RESERVATIONS (Rights-of-Way)

APPROPRIATIONS UNDER 44 L.D. 513	R11
DITCH OR CANAL	R7
HIGHWAY OR ROAD	R2
MATERIAL SITE	R9
OTHER RIGHTS-OF-WAY UNDER PART 244, 43 CFR (specify)	R10
PIPELINE	R3
POWER TRANSMISSION LINE	R5
RADIO OR TV INSTALLATION	R6
RAILROAD	R1
RANGE IMPROVEMENTS	R12
RESERVOIR	R8
TELEPHONE OR TELEGRAPH	R4

GROUP TWO

MINERAL RESERVATIONS

DESCRIPTION	LETTER SYMBOL
ALL LEASABLE AND LOCATABLE MINERALS RESERVED UNDER ACT OF 12-29-16	MR10
ALL LEASABLE MINERALS	MR7
ALL MINERALS RESERVED UNDER ACT OF 6-1-38	MR11
ALL MINERALS RESERVED UNDER RECREATION AND PUBLIC PURPOSES ACT	MR12
ASPHALTIC MINERALS RESERVED	MR2
COAL RESERVED UNDER 1909 OR 1910 ACTS	MR9
NITRATE	MR3
NO MINERAL RESERVATION	MRO
OIL AND GAS	MR1
PHOSPHATE	MR4
POTASH	MR5
PRIVATELY OWNED AS TO SURFACE, ALL MINERALS RESERVED	MR8
SODIUM AND SULPHUR	MR6
SURFACE AND MINERALS PRIVATELY OWNED	MR13
SURFACE, ONLY	MRS
SURVEYED, UNPATENTED MINING CLAIM	MRC

9161—MAP SYMBOLS

GROUP TWO

LEASES AND PERMITS

DESCRIPTION	LETTER SYMBOL
OTHER LEASE	L4
OTHER PERMIT	P2
PUBLIC WORKS ACT LEASE	L1
RECREATION AND PUBLIC PURPOSES ACT LEASE	L3
SMALL TRACT ACT LEASE	L2
SPECIAL LAND USE PERMIT	P1

OTHER APPLICATIONS AND ENTRIES

DESERT LAND PETITION-APPLICATION	A1
DESERT LAND ENTRY	E1
HOMESTEAD PETITION-APPLICATION	A2
HOMESTEAD ENTRY	E2
MINERAL PATENT APPLICATION	A7
OTHER APPLICATION (Not including withdrawal)	A8
PUBLIC SALE PETITION-APPLICATION	A5
RECREATION AND PUBLIC PURPOSES ACT PETITION-APPLICATION	A4
SMALL TRACT PETITION-APPLICATION	A3
SPECIAL LAND USE APPLICATION	A6
PUBLIC LAND SALE ACT PETITION-APPLICATION	A9

GROUP TWO

AGENCIES

DESCRIPTION	LETTER SYMBOL
AIR FORCE	USAF
ARMY	USA
BUREAU OF INDIAN AFFAIRS	USBIA
BUREAU OF LAND MANAGEMENT	USBLM
BUREAU OF RECLAMATION	USBR
BUREAU OF SPORTS FISHERIES AND WILDLIFE	USBSFW
CORPS OF ENGINEERS	USCORPS
DEPARTMENT OF DEFENSE	USDEF
FOREST SERVICE	USFS
GENERAL SERVICES ADMINISTRATION	USGSA
NATIONAL PARK SERVICE	USNPS
NAVY	USN
STATE DEPARTMENT OF FORESTRY	SF
STATE GAME AND FISH DEPARTMENT	SGF
STATE LAND BOARD	SLB
STATE PARK AND RECREATION BOARD	SPRB

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U.S. DEPARTMENT OF LAND
CENTER

U.S. DEPARTMENT
BUREAU OF LAND
BORROWER

GA
105
Map symbol handbook
. L362
1966

DATE LOANED	BORROWER

(Continued on reverse)

Form

